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ABSTRACT
The Institution of Electrical Engineers conducted a study in the United Kingdom and the United States to determine the need for their new publication "Current Papers in Physics (CPP)," and its usefulness to the physics community. Questionnaires were used to (1) recruit panel members to test reader reaction to the publication over a period of one year, (2) collect necessary background on panelists, (3) determine methods used by physicists to obtain current information prior to CPP, and (4) discover what physicists felt a good awareness journal in physics should be like. Prior to CPP, the three most widely used methods of current awareness were (1) scanning current issues of journals (2) contacts with colleagues, and (3) listening to presentations at meetings. The use of abstract journals was a major method of both retrospective search and current awareness. A major concern for an awareness journal was that it be current. Physicists were concerned with specialized aspects of physics and not general information. Appendixes contain (1) questionnaires, (2) additional panel data, (3) data on overseas panels, and (4) comments on published abstract journals as current awareness tools. (DH)

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# Results of Questionnaire on Current Awareness Methods Used by Physicists prior to Publication of "Current Papers in Physics"

(First Report of CPP Study)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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## Abstract

During the first year of publication of *Current Papers in Physics* (1966), a joint study was undertaken in the UK (I.E.E.) and the US (A.I.P.) to assess the need for the new publication and its usefulness to the physics community. Panels of physicists were set up in the UK (268 physicists) and the US (682 physicists). Prior to the publication of CPP panel members received the first of a series of three tests. This initial questionnaire covered panel composition; methods used by physicists to keep up to date prior to CPP; expectations of a current awareness journal in the field of physics. Results of this first survey showed that current awareness journals were not much used by panel members before CPP appeared. Physicists co-operating in the study seemed to rely mainly on scanning current issues of journals, but indicated that they would welcome a publication that would relieve them of this chore, provided that "nothing relevant" was missed.



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# 1 INTRODUCTION

## (*a*) Purpose of the study

In 1965 the Institution of Electrical Engineers announced that it was planning to publish a current awareness journal in physics which would commence publication in January, 1966. This publication, *Current Papers in Physics*, would be in newspaper format and appear bi-monthly. The IEE and the then Documentation Research Project staff of the American Institute of Physics agreed that a joint study should be conducted in the United Kingdom and the United States to determine the need for the new publication and its usefulness to the physics community.

The IEE requested the Aslib Research Department to conduct the British part of the investigation. In the United States the DRP staff undertook the study. It was agreed that the study should be carried out by questionnaire, and that the first effort should be to discover what current awareness methods physicists were using prior to the publication of *Current Papers in Physics* (hereafter called CPP), because the existing situation should be studied before the perturbation of a new publication appeared. This seemed also the appropriate time to ask physicists what kind of current awareness journal they felt would be of use.

With these objectives in mind, the first questionnaire was established to:

(i) Recruit members of a panel to take part in several tests of reader reaction to CPP over a period of approximately one year. The panel size aimed at was 300–400 physicists (British and Overseas) and 600–700 physicists (US) for a total panel of 1,000 physicists.

(ii) Collect necessary background information about co-operating physicists to ensure that the panel was as representative as possible of physicists as a whole. These data also have relevance to the opinions expressed on the subject coverage and classification of CPP. In addition, the various sub-groups of which the panel was composed could be studied in isolation where necessary—e.g. industrial against academic physicists.

(iii) Find out how physicists obtained current information before the publication of CPP.

(iv) Discover what physicists imagined a good current awareness journal in the field of Physics should be like, before the appearance of CPP. (*See Appendix A for Questionnaires*).

This report covers only the results of the first questionnaire. Two later questionnaires covered (*a*) physicists' comments on CPP and suggested improvements; (*b*) a record of the actual use made of the publication and the order in which sections were scanned. The results of these studies will be reported separately.

## (*b*) Method of recruitment

In the UK it was decided to ask physicists to join a panel for the duration of the test (three questionnaires in all). During this period they would receive a free year's subscription of CPP. At the end of the test period a check would be made to see how many panel members became subscribers—i.e. found CPP sufficiently helpful to be worth paying for themselves.

Free subscriptions were not offered to US physicists because the AIP wished to obtain additional comments from subscribers at the time of the second questionnaire. This procedure would allow the "drop out" rate to be alleviated and maintain the numbers in the surveyed population.

On the first US questionnaire respondents were asked if they would be willing to answer additional questionnaires. Of the 662 returns which were processed, 559 (82%) indicated willingness to co-operate in additional questionnaires, 40 (6%) were not sure and 83 (12%) replied in the negative. It was expected that only a small proportion of the 599 replying in the positive would become subscribers to CPP.

It should be noted that at the time this first questionnaire was distributed, respondents had *not* seen sample issues of CPP and their replies were, therefore, not biased.

The questionnaires used in the two countries were not identical, but basically they covered the same ground. The US version did not ask for background information on the respondents and more "free language" questions were included. (*See Appendix A for Questionnaires.*)

## 2 SUMMARY OF RESULTS OF QUESTIONNAIRE ON CURRENT AWARENESS METHODS PRIOR TO PUBLICATION OF CURRENT PAPERS IN PHYSICS (CPP)

Members of the UK panel were given a year's free subscription to CPP. This offer had a double purpose: (*a*) a frank inducement to ensure a year's co-operation in the study and (*b*) to ensure that comments received came from physicists familiar with the publication. Because of this reward factor, the UK group possibly contains a higher proportion of physicists who felt initially that they had no particular need for a current awareness journal, but were prepared to give a free offer a trial.

The US physicist is inundated with a large number of questionnaires in the course of a year. The completed returns came in the main from physicists who were aware of the problem of keeping up to date and wanted to contribute their ideas. This means that the US panel may be slightly more conscious of the need for a good current awareness journal . . . the returns tended to come from "the converted" and the US group was slightly less biased initially against CPP. Also the US respondents did not have the incentive of a free subscription to CPP.

The most productive questions in the survey were the ones on the methods of current awareness used by physicists and their evaluation; the actual use being made of current awareness journals by this section of the scientific community; the use made of abstracts journals; and the requirements for a good current awareness journal in physics.

(*a*) Information on the methods used for current awareness by the physics community was collected and the three most widely used were: scanning current issues of journals, contacts with colleagues, and listening to papers at meetings. By indicating preferences in the UK and by ranking in the US it was also possible to see the relative usefulness of these three methods, and show that other methods, though used by the physics community (e.g. abstracts journals), were thought to be much less useful.

Scanning or reading current issues of journals was most heavily relied on as a means of keeping up-to-date prior to CPP. This method was actually used by 91% of the total panel, and was thought to be the best method by 36% of the UK physicists, while 37% of the US physicists ranked this method in first place. A current awareness journal that brings together the contents of this invaluable but diffuse source of current information, and does away with the chore of actually scanning journals has obvious appeal, provided that the physicist feels reasonably confident that "nothing relevant is missed". (*See Section* 4)

(*b*) Published current awareness journals were used by a small percentage of physicists (UK 22%; US 22%.) This opinion, however, was based on the current awareness journals available to the panel at that time. None of these journals has the subject scope of CPP. Experience of these journals seems to have given a bad impression of the potential usefulness of a current awareness journal.

In general, the use tended to follow the country of publication pattern. The journals published in the UK—*British Technology Index* and *Current Papers for the Professional Electrical and Electronics Engineer* were used more in the UK than in the United States, and the reverse was true for the US population in terms of *Chemical Titles*, *Current Contents*, etc. (*See Section* 5)

(*c*) The use made of abstracts journals also tended to follow the country of origin pattern, with the US produced material being used slightly more in the United States, and the British generated journals being used more in the UK. It would seem that the UK physicists use abstracts journals rather more than the US group (UK 90%; US 84%).

Physicists appear to be very attached to abstracts journals as a means of keeping up-to-date, in spite of conscious irritation at the time-lag between publication of the original article and notification in abstracts journals. Prior to CPP 87% of the panel used abstracts journals, 78% using them for retrospective search and 77% using them for current awareness. (*See Section* 7)

(*d*) The requirements of a current awareness journal in physics were specified by 95% of the UK respondents, and 72% of the US respondents. While some of these were contradictory ("it should cover only own field", "should cover everything except own field"), they were mainly constructive suggestions. The most frequently expressed non-contradictory ideas in both countries concerning the function of the publication were: speed of getting information—i.e. reduction of time-lag between publication of the original article and notification in the abstracts journals (expressed by 50% of UK and 15% of US respondents) and save time searching (40% UK, 9% US). (*See Section* 8)

Physicists seemed to be more interested in keeping up in their own speciality than in the field of physics as a whole. It was natural that there should be some fear expressed that one's particular field may be "lost", scattered, or not properly represented in a journal of general coverage. However, panel physicists already realised and appreciated the advantages of speedy acquisition of information, and the savings in search of time, energy and sometimes money, conferred by a good current awareness journal.

Prior to the publication of CPP, *Physics Abstracts* was the most widely used publication in the field, in both the UK and the US. It was used by 77% of UK and 60% of US physicists. The heavy usage of this existing IEE publication in physics augurs well for the success of a complementary current awareness journal from the same publishers.

## 3 SAMPLE SIZE AND PANEL SELECTION

### (*a*) UK Procedure

A listing of the total population of physicists in the UK was not available at the time of planning this study. Future surveys of this kind may benefit from the UK 1966 Census results. Unfortunately, the Census came too late to help. The two suitable accessible sources used were, therefore, the membership list of the Institute of Physics and The Physical Society, and the *Directory of British Scientists*. A random sample was drawn from each of these lists for use in panel recruiting.

In November 1965, a recruiting letter and a copy of the first questionnaire was mailed to a random sample of 700 members of the IPPS. This sample included 150 overseas physicists. The publishers of CPP felt that some indication of overseas reaction to the publication would be useful. From this total sample of 700 we recruited 219 panel members (162 UK and 57 overseas physicists), a 31% response rate. The original random sample of 700 was approximately a 5% sample of the IPPS list in the case of UK physicists, and a 14% sample in the case of overseas physicists.

Subsequently it was agreed that results for the overseas group would be considered separately, and not compared in main tables with UK/US returns. The number of overseas physicists is not proportionate to numbers of UK and US physicists. Overseas results will be found in Appendix C.

In January 1966, a random sample of 350 (6%) of the physicists listed in the most recent issue (1964–5) of the *Directory of British Scientists* was drawn. This produced a further 106 UK panel members (a 30% response rate).

UK and Overseas Analysis of Response

| | *Original random sample* | *Acceptances (panel)* | *Refusals* | *Deaths* | *Returned by Post Office* | *Not* Accounted for* |
|---|---|---|---|---|---|---|
| UK panel ... ... | 900 (100%) | 268 (30%) | 152 (17%) | 5 (1%) | 71 (8%) | 404 (44%) |
| Overseas panel ... | 150 (100%) | 57 (38%) | 16 (11%) | 2 (1%) | 3 (2%) | 72 (48%) |

* i.e. no acceptance, no explicit refusal, no form returned by Postal Authorities because address out-of-date. The percentage of these people who actually received questionnaires but ignored them is not known.

### (*b*) US Procedure

A National Register of Scientific and Technical Personnel is maintained in the United States. Every two years all physicists are requested to fill out a questionnaire in which they select their specialties by field of physics, employer and work activity. As this information from the National Register was available to the AIP staff, it was not desirable to ask the physicist for a repeat of this background material.

Using the 1964 tape of the National Register, the specialty codes of the physics community were scanned and divided by the employer and work activity codes. Each physicist was selected on the basis of his major specialty.

The National Register contains information on 27,378 physicists. Approximately 10% or 2,591 physicists were approached by questionnaire, and the relative proportion of the total population by specialty, employer and work activity was maintained in the sample. As the tape used was comparatively old (1964) a high proportion of questionnaires were returned by the Post Office. However, a usable return of 682 was received at the AIP.

US Analysis of Response

*Total No. Physicists on National Register:* 27,378

| | | *Completed Returns* | *Returned by Post Office* | *Not Accounted for* |
|---|---|---|---|---|
| Total No. Questionnaires Distributed ... ... | 2,591 (100·0%) | 682 (26·3%) | 103 (4·0%) | 1,806 (69·7%) |

### (*c*) Comparative Tables of US/UK

(i) *Field of Physics*

*NOTE:* The titles chosen for the fields of physics are the main subject divisions used in *Physics Abstracts* and in CPP. The US National Register specialty codes have been matched to these divisions (see Appendix B). These subject divisions do not represent an ideal breakdown of physics specialties. They show the literature divisions currently in use which do not necessarily provide an adequate structure of interest areas in which physicists are currently working.

It should also be noted that the respondents in the US group were placed in one category only. This corresponded to their major specialty as noted in the National Register. Of the UK respondents 45% checked more than one specialty,

and these are shown below and explained in the footnote table. In comparing the panels in the two countries the proportion was found to vary in several fields. This may be due to the different interests of physicists in the two countries or it may be caused in part by the multiple selection of a high proportion of UK respondents. In view of this discrepancy it was decided that no cross tabulation of results based on field of physics would be included in this report.

| (i) *Fields of Physics** | *US* | *UK* |
|---|---|---|
| Acoustics/vibs/waves | 25 (3·67%) | 17 (6·3%) |
| Atomic and molecular physics | 47 (6·89%) | 12 (4·5%) |
| Plasma physics | 20 (2·93%) | 14 (5·2%) |
| Electricity and magnetism | 13 (1·91%) | 34 (12·7%) |
| X-rays | 4 ( ·59%) | 27 (10·1%) |
| Electromagnetic waves and osc. | 21 (3·08%) | 21 (7·8%) |
| Electronics | 34 (4·99%) | 12 (4·5%) |
| Elementary particles | 41 (6·01%) | 5 (1·9%) |
| Mechanics | 20 (2·93%) | 16 (6·0%) |
| Nuclear physics | 82 (12·02%) | 35 (13·1%) |
| Optics | 51 (7·48%) | 29 (10·8%) |
| Fluids/gases | 18 (2·64%) | 22 (8·2%) |
| Solid state | 123 (18·04%) | 100 (37·3%) |
| Heat | 18 (2·64%) | 22 (8·2%) |
| Geophysics | 19 (2·79%) | 18 (6·7%) |
| Physical chemistry | 3 ( ·44%) | 9 (3·4%) |
| Biophysics | 11 (1·61%) | 14 (5·2%) |
| Mathematical physics | 15 (2·20%) | 10 (3·7%) |
| Other physics specialties | 66 (9·68%) | 18 (6·7%) |
| Engineering | 51 (7·48%) | — — |
| Total no. of physicists: | 682 (100%) | 268 (100%) |

* UK respondents were permitted to select more than one field, while US respondents were placed in a single field which corresponded to their major specialty in the National Register. Therefore, the percentages in the UK column in this table will add up to more than 100% as these percentages are expressed with the total no. of people (not choices) as the base.

*Footnote table:*

| | *UK* |
|---|---|
| Total no. of fields | 435 |
| No. of people giving "other" verbatim answer** | 123 (45·9%) |
| No. of people working in a single field | 147 (54·9%) |
| No. of people with multiple interests | 121 (45·1%) |
| Total no. of people in panel | 268=100% |

**The original list supplied has been amended, where necessary, to include such answers—e.g. Electronics, Mechanics.

(ii) *Employer, Work Activity**

The National Register codes used for the 682 US returns were examined and split into groups to match as closely as possible the groupings used in the UK questionnaire. The grouping of the National Register Specialty code can be seen in Appendix B, page 22. The grouping of employer and work activity was as follows:

| *Employer* | *Work Activity* |
|---|---|
| Government | Management/Administration |
| Academic | Basic Research |
| Non-Profit/Other | Research and Development |
| Industrial/Business | Teaching |
| | Other |

*Employer*

*NOTE:* It was possible to make an approximately direct match between the Employer groups in the two countries. The Other category used in the US National Register includes Non-Profit. As it also includes a few other sub-categories, it is therefore higher than the UK Non-Profit group.

| *US/UK* | *Employer* | *US Only* | *UK Only* |
|---|---|---|---|
| 950 (100·0%) | | 682 (100·0%) | 268 (100·0%) |
| 146 (15·4%) | Government | 88 (12·9%) | 58 (22·0%) |
| 364 (38·3%) | Academic | 259 (38·0%) | 105 (39·0%) |
| 145 (15·3%) | Non-Profit/Other | 136 (19·8%) | 9 (3·0%) |
| 295 (31·0%) | Industrial/Business | 199 (29·3%) | 96 (36·0%) |

* Detailed panel comparison tables and definition codes are given in Appendix B, pages 24—25.

*Work Activity*

*NOTE:* It was not possible to provide a direct match between work activities in the two countries. The US Basic Research group and the Research/Teaching combination in the UK cannot be matched directly. A partial combination of the US Basic Research and Teaching lines would probably be needed. Therefore the figures in the left hand column do not represent a proportional total of the panel's composition in the two countries.

| *US/UK* 950(100·0%) | *Work Activity* | *US Only* 682(100·0%) | *UK Only* 268(100·0%) |
|---|---|---|---|
| 144 (15·2%) | Administration ... ... ... ... ... | 103 (15·1%) | 41 (15·3%) |
| 16 (1·7%) | Admin/Research ... ... ... ... ... | --- --- | 16 (6·0%) |
| 310 (32·6%) | Res/Dev/Prod. ... ... ... ... ... ... | 159 (23·3%) | 151 (56·3%) |
| 232 (24·4%) | Basic Research ... ... ... ... ... | 232 (34·0%) | --- --- |
| 31 (3·2%) | Res/Teaching ... ... ... ... ... ... | --- --- | 31 (11·6%) |
| 146 (15·4%) | Teaching ... ... ... ... ... ... | 117 (17·2%) | 29 (10·8%) |
| 71 (7·5%) | Other ... ... ... ... ... ... | 71 (10·4%) | --- --- |

**(iii) Panel composition: Employer + work activity***

| | *Government* | | | *Academic* | | | *Non-Profit/Other* | | | *Industrial/Business* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total: | *US/UK* 146 (15·4%) | *US* 88 (12·9%) | *UK* 58 (22·0%) | *US/UK* 364 (38·3%) | *US* 259 (38·0%) | *UK* 105 (39·0%) | *US/UK* 145 (15·3%) | *US* 136 (19·8%) | *UK* 9 (3·0%) | *US/UK* 295 (31·0%) | *US* 199 (29·3%) | *UK* 96 (36·0%) |
| Administration | 47 | 35 | 12 | 17 | 6 | 11 | 16 | 15 | 1 | 64 | 47 | 17 |
| Admin/Res. ... | 7 | --- | 7 | 1 | --- | 1 | 0 | --- | 0 | 8 | --- | 8 |
| Res/Dev/Prod | 54 | 16 | 38 | 56 | 16 | 40 | 42 | 35 | 7 | 158 | 92 | 66 |
| Basic Res. ... | 33 | 33 | --- | 109 | 109 | --- | 50 | 50 | --- | 40 | 40 | --- |
| Res/Teaching | 0 | --- | 0 | 273 | --- | 27 | 1 | --- | 1 | 3 | --- | 3 |
| Teaching ... | 1 | 0 | 1 | 14 | 117 | 26 | 0 | 0 | 0 | 2 | 0 | 2 |
| Other ... ... | 4 | 4 | --- | 11 | 11 | --- | 36 | 36 | --- | 20 | 20 | --- |

In the main body of the report, a quantitative answer for the two countries has been given with no breakdown. As the respondents in both countries represent a fairly small proportion of the physics community, it seemed unwise to present detailed cross sorting. Any indicative trends by groups of physicists mentioned in the report or shown in the Appendix tables should be regarded with extreme caution. They are given for interest value rather than strict validity. (See Appendix D).

* See note on preceding Work Activity table.

## 4 METHODS OF CURRENT AWARENESS: USAGE AND PREFERENCE

(*a*) In this question physicists were given a list of the current awareness methods known to be used by the physics community.

US/UK Comparative Table

| *US/UK Total usage* | | *US Only Total usage* | *UK Only Total usage* |
|---|---|---|---|
| 950 | No. of physicists in panel ... ... ... ... ... | 682 | 268 |
| 950=100·0% | No. of physicists answering question ... ... ... | 682=100·0% | 268=100·0% |
| | *Methods Used* | | |
| 868 (91·4%) | Scanning current issues of journals ... ... ... | 617 (90·5%) | 251 (93·7%) |
| 775 (81·6%) | Personal contacts ... ... ... ... ... ... | 566 (83·0%) | 209 (78·0%) |
| 773 (81·4%) | Listening to papers, etc. ... ... ... ... ... | 574 (84·2%) | 199 (74·3%) |
| 553 (58·2%) | Published abstracts jnls. ... ... ... ... ... | 373 (54·6%) | 180 (67·2%) |
| 550 (57·9%) | Obtaining preprints ... ... ... ... ... | 416 (61·0%) | 134 (50·0%) |
| 241 (25·4%) | Internal abstracts journals ... ... ... ... ... | 144 (21·1%) | 97 (36·2%) |
| 206 (21·7%) | Current awareness journals ... ... ... ... | 148 (21·7%) | 58 (21·6%) |
| 113 (11·9%) | Other methods ... ... ... ... ... ... | 88 (12·9%) | 25 (9·3%) |

The main result of this question is quite clear cut. Looking at current issues of journals was by far the most widely used *and* the most popular method of obtaining current information. Current awareness journals, prior to the publication of CPP, did not fare well in terms of use or assessed usefulness. The first table given above shows the usage of the various methods in the two countries. It is interesting to note that contacts with colleagues, one of the hallmarks of the "invisible college", does not stand alone at the head of the list. Scanning current journals was almost equally used and the often despised technical papers delivered at meetings. Published current awareness journals, which one would expect to be easier to obtain in the US did not prove to be any more popular there than in the UK.

UK physicists were asked to state first and second preference (table *b*) while the US respondents ranked their selection of methods (table *c*). The ranked table is interesting in that it shows the gap between the three most widely used methods, and the others at the opposite end of the scale (table *d*).

Comparison of extent of use and expressed preference in some of the other categories listed does, however, reveal an interesting discrepancy. Personal contacts with colleagues, and listening to papers at meetings and conferences, which rate high on sheer extent of use, were not ranked or preferred at a proportionately high level. There is a discrepancy here between usage and evaluation of usefulness. There are several possible explanations for high usage of less effective methods. In the case of personal contact, this method is so easy. This is not so much a deliberately cultivated method, as just something that unavoidably happens when physicists get together. In the case of papers heard at meetings and conferences, current information is only one of the bonus effects derived from attending. Many people attend with aims quite other than "keeping up to date". Therefore, the usage is higher than the estimation of the method.

(*b*) *UK Preference and Usage Table*

| | *Total Usage* | *First Pref.* | *Second Pref.* | *Also mentioned* |
|---|---|---|---|---|
| No. physicists in panel ... ... ... | 268=100·0% | 268=100·0% | 286=700·0% | 268=100·0% |
| No. answering question ... ... ... | 268 | 200 | 197 | 256 |
| *Methods Used* | | | | |
| Current issues of journals ... ... ... | 251 (93·7%) | 97 (36·2%) | 46 (17·2%) | 108 (40·3%) |
| Personal contacts ... ... ... ... | 209 (78·0%) | 28 (10·4%) | 28 (10·4%) | 153 (57·1%) |
| Listening to papers ... ... ... ... | 199 (74·3%) | 9 (3·4%) | 45 (16·8%) | 145 (54.1%) |
| Published abstracts journals ... ... | 180 (67·2%) | 21 (7·8%) | 37 (13·8%) | 122 (45·5%) |
| Obtaining preprints ... ... ... | 134 (50·0%) | 9 (3·4%) | 12 (4·5%) | 113 (42·2%) |
| Internal abstracts journals ... ... | 97 (36·2%) | 28 (10·4%) | 19 (7·1%) | 50 (18·7%) |
| Current awareness journals ... ... | 58 (21·6%) | 7 (2·6%) | 5 (1·9%) | 46 (17·2%) |
| Other methods ... ... ... ... | 25 (9·3%) | 1 (0·4%) | 5 (1·9%) | 19 (7·1%) |

(c) *US Ranked Table*

Total no. of physicists in panel ... ... 682
Total no. answering question ... ... 682=100·0%

| *Methods Used* | *Ranking* | | | | | | | | | *Total Usage* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | * | |
| Scanning current issues of journals | 251 | 112 | 56 | 39 | 19 | 7 | 2 | 0 | 131 | 617 (90·5%) |
| Personal contacts ... ... | 108 | 123 | 107 | 73 | 28 | 6 | 3 | 0 | 118 | 566 (83·0%) |
| Listening to papers ... ... | 38 | 94 | 130 | 125 | 44 | 15 | 3 | 0 | 125 | 574 (84·2%) |
| Published abstracts journals ... | 47 | 72 | 61 | 48 | 53 | 16 | 2 | 0 | 74 | 373 (54·6%) |
| Obtaining preprints ... ... | 37 | 62 | 89 | 71 | 47 | 15 | 2 | 0 | 93 | 416 (61·0%) |
| Internal abstracts journals ... | 23 | 27 | 13 | 22 | 16 | 11 | 5 | 1 | 26 | 144 (21·1%) |
| Current awareness journals ... | 19 | 21 | 27 | 17 | 16 | 11 | 8 | 0 | 29 | 148 (21·7%) |
| Other methods ... ... | 16 | 10 | 13 | 15 | 9 | 1 | 1 | 1 | 22 | 88 (12·9%) |

* Indicates the number of respondents who checked to indicate that they used a certain method, but did not rank.

(d) *Point scale table* (US only)

The ranking of methods was calculated on a point scale by multiplying methods ranked first by 8, second by 7 etc. Methods checked but not ranked were multiplied by 4·5. The total for each multiplication was then divided by 8×682 to arrive at the following point scale, which shows the grouping of the most used methods at one end of the scale, and the less used methods at the bottom.

| | | *US/UK Total Usage* |
|---|---|---|
| 0·735 | Scanning current issues of journals ... ... ... ... | 91·4% |
| 0·622 | Personal contacts with colleagues ... ... ... ... | 81·6% |
| 0·578 | Listening to papers at meetings ... ... ... ... | 81·4% |
| 0·416 | Obtaining preprints ... ... ... ... ... ... | 57·9% |
| 0·320 | Published abstracts journals ... ... ... ... ... | 58·2% |
| 0·144 | Internal abstracts journals ... ... ... ... ... | 25·4% |
| 0·144 | Current awareness journals ... ... ... ... ... | 21·7% |

## 5 USE OF PUBLISHED CURRENT AWARENESS JOURNALS PRIOR TO THE PUBLICATION OF CPP AND REASONS FOR USING SAME

Physicists were asked specifically which current awareness journals they used fairly regularly. A list of published current awareness journals was provided (see list in table below). Panel members were also allowed to add to the list the titles of any other unlisted journals.

**Use of current awareness journals**

| *US/UK* | | *US only* | *UK only* |
|---|---|---|---|
| 950 (100·0%) | Total no. of physicists in panel ... ... ... ... | 682 (100·0%) | 268 (100·0%) |
| 297 ( 31·3%) | No. using current awareness journals ... ... ... | 225 ( 33·0%) | 72 ( 26·9%) |
| 653 ( 68·7%) | No. *not* using current awareness journals ... ... ... | 457 ( 67·0%) | 196 ( 73·1%) |
| 1·2 | Average no. journals per person (amongst users) ... ... | 1·3 | 1·1 |
| 12 ( 1·3%) | British Technology Index ... ... ... ... ... | 5 ( 0·7%) | 7 ( 2·6%) |
| 26 ( 2·7%) | Chemical Titles ... ... ... ... ... ... | 22 ( 3·2%) | 4 ( 1·5%) |
| 15 ( 1·6%) | Current Chemical Papers ... ... ... ... ... | 10 ( 1·5%) | 5 ( 1·9%) |
| 17 ( 1·8%) | Current Contents: Chemical Science ... ... ... | 15 ( 2·2%) | 2 ( 0·7%) |
| 154 ( 16·2%) | Current Contents: Physical Science ... ... ... ... | 127 ( 18·6%) | 27 ( 10·1%) |
| 92 (9·7%) | Current Papers: Electrical and Electronics Engineer ... | 55 ( 8·1%) | 37 ( 13·8%) |
| 54 ( 5·7%) | Other ... ... ... ... ... ... ... ... | 54 ( 7·9%) | 0 |

Only two journals seem to be of any real interest to the UK physicist as a whole: the IEE publication *Current Papers for the Professional Electrical and Electronics Engineer*, and *Current Contents: Physical Sciences.*

In the US there is slightly higher use of the current awareness journals published in the United States. Also a comparatively high proportion of "other" methods were written in by the US respondents.

Physicists were asked "What is your main purpose in using these current awareness journals?" A list of four alternative possible reasons was provided and is reproduced in the table below:

**Reason for using current awareness journals**

| *US/UK* | | *US only* | *UK only* |
|---|---|---|---|
| 950 (100·0%) | Total no. physicists in panel ... ... ... ... ... | 682 (100·0%) | 268 (100·0%) |
| | No. answering this question ... ... ... ... ... | 225 (33·0%) | 72 ( 26·9%) |
| | Learning without delay what has been published: | | |
| 263 ( 27·7%) | —in own specialty ... ... ... ... ... ... | 201 ( 29·5%) | 62 ( 23·1%) |
| | —in wider field of journal ... ... ... ... ... | 109 ( 16·0%) | 17 ( 6·3%) |
| 60 ( 6·3%) | Checking whether work by authors/organisations, on particular subjects published ... ... ... ... ... | 53 ( 7·8%) | 7 ( 2·6%) |
| 64 ( 6·7%) | Retrospective searching of back files ... ... ... | 56 ( 8·2%) | 8 ( 3·0%) |

## 6 USE MADE OF OTHER SERVICES

(*a*) In this question several current awareness tools were listed which had not been covered by the question on published current awareness journals. The results in the two countries were very similar (table *b*) and show that the only two current awareness systems being used are titles lists produced mainly by parent organisation and abstracts bulletins. With reference to the latter, it appears that more of these come from the parent organisation in the UK than in the US.

**(*b*) Use made of Other Services**

| *US/UK Total* | | *US only* | *UK only* |
|---|---|---|---|
| 950 (100·0%) | Total no. of physicists in panel ... ... ... ... | 682 (100·0%) | 268 (100·0%) |
| 601 ( 63·3%) | No. using other current awareness services ... ... | 421 ( 61·7%) | 180 ( 67·2%) |
| 349 ( 36·7%) | No. using *none* of other services listed below .. ... | 261 ( 38·3%) | 88 ( 32·8%) |
| | *Other Services used:* | | |
| | Titles or accessions lists: | | |
| 409 ( 43·0%) | —own organisation ... ... ... ... ... | 287 ( 42·1%) | 122 ( 45·5%) |
| 172 ( 18·1%) | —outside organisations ... ... ... ... ... | 122 ( 17·9%) | 50 ( 18·7%) |
| | Abstracts bulletin: | | |
| 269 ( 28·3%) | —own organisation ... ... ... ... ... | 95 ( 13·9%) | 74 ( 27·6%) |
| 121 ( 12·7%) | —outside organisations ... ... ... ... ... | 81 ( 11·9%) | 40 ( 14·9%) |
| | SDI system: | | |
| 152 ( 16·0%) | —own organisation ... ... ... ... ... | 101 ( 14·8%) | 51 ( 19·0%) |
| 54 ( 5·7%) | —outside organisations ... ... ... ... ... | 43 ( 6·3%) | 11 ( 4·1%) |
| 38 ( 4·0%) | Other services or systems ... ... ... ... ... | 33 ( 4·8%) | 5 ( 1·9%) |

**(*c*) Usage and Estimation of other Current Awareness Services: UK only**

| | *Total usage of Other Services (100%)* | *Found Better* | *Found Worse* | *Don't Know**1 |
|---|---|---|---|---|
| Total no. physicists using other services *2 ... | 180 | 67 (37·2%) | 50 (27·8%) | 92 (51·1%) |
| Total no. other services used ... ... ... | 353 | 109 (30·9%) | 67 (19·0%) | 177 (50·1%) |
| *Other services used* | | | | |
| Titles or accessions lists | | | | |
| —own organisation ... ... ... ... | 122 | 36 (29·5%) | 24 (19·7%) | 62 (50·8%) |
| —outside organisation ... ... ... | 50 | 12 (24·0%) | 13 (26·0%) | 25 (50·0%) |
| Abstracts bulletins | | | | |
| —own organisation ... ... ... ... | 74 | 18 (24·3%) | 14 (18·9%) | 42 (56·7%) |
| —outside organisation ... ... ... | 40 | 15 (37·5%) | 5 (12·5%) | 20 (50·0%) |
| SDI *3 | | | | |
| —own organisation ... ... ... ... | 51 | 21 (41·2%) | 8 (15·7%) | 22 (43·1%) |
| —outside organisation ... ... ... | 11 | 5 (45·5%) | 3 (27·2%) | 3 (27·2%) |
| Other services and systems ... ... ... | 5 | 2 (40·0%) | 0 | 3 (60·0%) |
| Used none of the above ... ... ... | 88 | — | — | — |

*1 Don't know if better or worse, usually because unfamiliar with published current awareness journals and so unable to make any comparison.
*2 The 3 categories add up to more than 180 because some physicists made multiple decisions—i.e. said some services better but some worse.
*3 Selective dissemination of information system.

Prior to the publication of CPP published current awareness journals did not appear to be highly regarded by UK physicists. In fact, unpublished or "semi-published" titles lists from outside organisations were the *only* kind of current awareness service thought to be (slightly) worse than current awareness journals. Everything else referred to in the question was thought to be better. Services thought to be markedly better than published current awareness journals were: abstracts bulletins from outside sources, such as the Culham Laboratory; internal SDI systems. The latter were sometimes praised spontaneously in answer to the final open question, as the "real answer to the problem of keeping up to date".

## 7 USE MADE OF PUBLISHED ABSTRACTS JOURNALS AND COMMENTS ON ABSTRACTS JOURNALS

(*a*) Panel members were asked to indicate which abstracts journals they used "fairly regularly for current awareness and/or for retrospective searching". A list was provided (reproduced in tables below). Physicists were also asked to add any others not listed which they used fairly regularly.

On the whole, differences in usage appear to relate directly to country of origin of the publication: US journals were more heavily used in the United States, and UK journals in the UK. *Physics Abstracts* was the most used journal in both countries.

(*b*)—See over

**(*c*) Summary of comments—US only**

The US questionnaire asked respondents to comment on the published abstracts journals in terms of their utility as current awareness tools. This was an "open" or free language question and a total of 481 respondents (70·5%) answered, though some commented on current awareness journals or regular physics journals at this point. Replies could be grouped into approximately 20 critical comments on the drawbacks of an abstracts journal for current awareness, and 3 comments that indicated satisfaction.

To guide respondents several comments were included in the question, and as expected these were picked up by many respondents. Some 13·0% indicated that they found the abstracts journals easy to use, while approximately the same number 13·5% complained that they were "too bulky". This ambiguous term was interpreted to cover complaints of too much material, too time consuming to use, etc. The other suggested comment of an inadequate subject arrangement for the particular specialty was noted by 11·7%. The other major complaint not suggested by the question was the time lag, which was noted by 12·8%.

Other negative comments were related to the quality of the abstract, the indexing technique, and omissions such as author's address, keyword index, etc.; 5·4% respondents indicated that they had no complaint about abstracts journals as current awareness tools.

For full details of these comments, see Appendix E.

(*b*) **Summary table: Use made of Published Abstracts Journal**

| *US/UK TOTAL* | | | | *US ONLY* | | | *UK ONLY* | | |
|---|---|---|---|---|---|---|---|---|---|
| *Total Usage* | *Current Awareness* | *Retro-spective* | | *Total Usage* | *Current Awareness* | *Retro-spective* | *Total Usage* | *Current Awareness* | *Retro-spective* |
| 950=100% | 950=100% | 950=100% | Total physicists ... ... ... | 682=100% | 682=100% | 682=100% | 268=100% | 268=100× | 268=100% |
| 829 (87·2%) | 731 (76·9%) | 744 (78·3%) | No. using abs. journals ... ... | 588 (83·9%) | 423 (60·3%) | 524 (74·8%) | 241 (89·9%) | 187 (69·8%) | 220 (82·1%) |
| 121 (12·7%) | 340 (35·8%) | 206 (21·7%) | No. *not* using abs. jnls. ... ... | 94 (13·4%) | 259 (36·9%) | 158 (22·5%) | 27 (10·1%) | 81 (30·2%) | 48 (17·9%) |
| 18 ( 1·9%) | 17 ( 1·8%) | 8 ( 0·8%) | Analytical Abstracts ... ... | 11 ( 1·6%) | 8 ( 1·1%) | 6 ( 0·4%) | 9 ( 3·4%) | 9 ( 3·4%) | 2 ( 0·8%) |
| 42 ( 4·4%) | 18 ( 1·9%) | 33 ( 3·5%) | Appl. Sci. and Tech. Index ... | 35 ( 5·1%) | 14 ( 2·1%) | 27 ( 3·1%) | 7 ( 2·6%) | 4 ( 1·5%) | 6 ( 2·2%) |
| 46 ( 4·8%) | 37 ( 3·9%) | 18 ( 1·9%) | Battelle Tech. Review ... ... | 38 ( 5·6%) | 31 ( 4·5%) | 14 ( 2·0%) | 8 ( 3·0%) | 6 ( 2·2%) | 4 ( 1·5%) |
| 19 ( 2·0%) | 13 ( 1·4%) | 13 ( 1·4%) | Bulletin Signaletique ... ... | 13 ( 1·9%) | 11 ( 1·8%) | 8 ( 1·0%) | 6 ( 2·2%) | 2 ( 0·8%) | 5 ( 1·9%) |
| 151 (15·9%) | 44 ( 4·6%) | 147 (15·5%) | Chemical Abstracts ... ... | 121 (17·7%) | 36 ( 5·2%) | 118 (13·2%) | 30 (11·2%) | 8 ( 3·0%) | 29 (10·8%) |
| 178 (18·7%) | 89 ( 9·4%) | 140 (14·7%) | Elec. Eng. Abs. (Sci. Abs. B.) ... | 113 (16·6%) | 55 ( 8·4%) | 88 (12·9%) | 65 (24·3%) | 34 (12·7%) | 52 (19·4%) |
| 53 ( 5·6%) | 9 ( 0·9%) | 50 ( 5·2%) | Engineering Index ... ... | 46 ( 6·7%) | 8 ( 1·2%) | 44 ( 5·5%) | 7 ( 2·6%) | 1 ( 0·4%) | 6 ( 2·2%) |
| 7 ( 0·7%) | 1 ( 0·1%) | 6 ( 0·6%) | —Plastics section ... ... | 4 ( 0·6%) | 1 ( 0·1%) | 3 ( 0·4%) | 3 ( 1·1%) | 0 | 3 ( 1·1%) |
| 38 ( 4·0%) | 11 ( 1·1%) | 28 ( 2·8%) | —Electrical/Electronics Secs. | 32 ( 4·7%) | 10 ( 1·5%) | 22 ( 3·2%) | 6 ( 2·2%) | 1 ( 0·4%) | 6 ( 2·2%) |
| 34 ( 3·6%) | 25 ( 2·6%) | 17 ( 1·8%) | Int. Aerospace Abs. ... ... | 29 ( 4·3%) | 21 ( 3·0%) | 13 ( 1·2%) | 5 ( 1·9%) | 4 ( 1·5%) | 4 ( 1·5%) |
| 65 ( 6·8%) | 36 ( 3·8%) | 42 ( 4·4%) | Mathematical Reviews ... ... | 53 ( 7·8%) | 28 ( 4·1%) | 33 ( 4·9%) | 12 ( 4·5%) | 8 ( 3·0%) | 9 ( 3·4%) |
| 209 (22·0%) | 117 (12·3%) | 177 (18·6%) | Nuclear Science Abs. ... ... | 166 (24·3%) | 96 (14·1%) | 140 (20·6%) | 43 (16·0%) | 21 ( 7·8%) | 37 (13·8%) |
| 616 (64·8%) | 362 (38·1%) | 540 (56·8%) | Physics Abs. (Sci. Abs. A.) ... | 410 (60·1%) | 233 (34·2%) | 355 (52·0%) | 206 (76·9%) | 129 (48·1%) | 185 (69·0%) |
| 12 ( 1·2%) | 5 ( 0·5%) | 7 ( 0·7%) | Physikalische Berichte ... ... | 10 ( 1·5%) | 4 ( 0·6%) | 6 ( 0·9%) | 2 ( 0·8%) | 1 ( 0·4%) | 1 ( 0·4%) |
| 2 ( 0·2%) | 1 ( 0·1%) | 1 ( 0·1%) | Referativnyi Zhurnal ... ... | 1 ( 0·1%) | 0 | 1 ( 0·1%) | 1 ( 0·4%) | 1 ( 0·4%) | 0 |
| 76 ( 8·0%) | 62 ( 6·5%) | 38 ( 4·0%) | STAR ... ... ... ... | 68 (10·0%) | 55 ( 8·1%) | 34 ( 1·9%) | 8 ( 3·0%) | 7 ( 2·6%) | 4 ( 1·5%) |
| 129 (13·6%) | 71 ( 7·4%) | 101 (10·6%) | Solid State Abstracts ... ... | 95 (13·9%) | 50 ( 7·3%) | 75 (11·0%) | 34 (12·7%) | 21 ( 7·8%) | 26 ( 9.7%) |
| 218 (22·9%) | 169 (17·8%) | 112 (11·8%) | US Govt. Res. Reps. ... ... | 164 (24·0%) | 125 (18·2%) | 82 (12·7%) | 54 (20·1%) | 44 (16·4%) | 30 (11·2%) |
| 93 ( 9·8%) | 75 ( 7·9%) | 53 ( 5·6%) | Other genuine abs. jnls. ... | 53 ( 7·8%) | 41 ( 6·0%) | 22 ( 3·2%) | 40 (14·9%) | 34 (12·7%) | 31 (11·6%) |
| 43 ( 4·5%) | 28 ( 2·9%) | 22 ( 2·3%) | Abstracts secs. in jnls. ... ... | 34 ( 5·0%) | 20 ( 2·9%) | 16 ( 2·3%) | 9 ( 3·4%) | 8 ( 3·0%) | 6 ( 2·2%) |
| 37 ( 3·9%) | 30 ( 3·2%) | 16 ( 1·7%) | Not really abs. jnls. ... ... | 28 ( 4·1%) | 21 ( 3·1%) | 9 ( 1·3%) | 9 ( 3·4%) | 9 ( 3·4%) | 7 ( 2·6%) |

## 8 REQUIREMENTS OF A PHYSICS CURRENT AWARENESS JOURNAL

This question called for an open answer and 72·0% of the US and 95·0% of the UK respondents replied. A total of 45 separate suggestions were identified. Several of these overlap each other, while others are quite contradictory. Some suggestions showed that respondents had lost the *current awareness* concept in that they asked for retrospective search capability in the publication. Several physicists stated that they would like to have indexes by author, subject and organisation. Many asked in a wishful thinking manner ("I know it is impossible, but . . .") for quality control and brief abstracts.

This was the only place in the British questionnaire in which physicists could express their feelings unrestricted and uninfluenced by "lists provided" and pre-set answer alternatives. Because of this the resulting spontaneous material is of great interest. However, being qualitative in nature it can not be subjected to such rigorous analysis as data obtained from the rest of the questionnaire.

Although physicists were not specifically asked to define their attitude to CPP in this final question (nor elsewhere in the questionnaire), it is in fact easy to grade UK replies on a crude attitude scale. In the majority of cases it is clear whether they are pro- or anti- the proposed publication. Responses to this question were analysed on this basis, with the following results:

**Attitude to CPP prior to its publication (UK only)**

| | |
|---|---|
| Total no. of physicists in panel ... ... ... ... ... | 268 (100·0%) |
| No. apparently in favour of the idea of CPP ... ... ... | 214 ( 79·8%) |
| No. with neutral or mixed attitude ... ... ... ... ... | 20 ( 7·5%) |
| No. with antagonistic attitude ... ... ... ... ... | 20 ( 7·5%) |
| No. failing to answer question ... ... ... ... ... | 14 ( 5·2%) |

**Definition and scope of headings used in table below**

A. COVERAGE: includes remarks relating to coverage of subject fields, languages, different types of publications, selectivity or all-inclusiveness of coverage policy.

B. ARRANGEMENT: includes subject arrangement, indexing, classification used by journal, cross-references, indexing techniques (e.g. keyword), inclusion or non-inclusion of indexes.

C. EDITORIAL STYLE, ETC.: Titles only versus abstracts or "some indication of contents", quality or type of article or paper.

D. PHYSICAL FORMAT: (self-explanatory).

E. TIME AND LABOUR SAVING ASPECTS: minimize the time lag after publication of papers listed; save time, labour, expense normally spent acquiring and scanning current journals; quick easy way to know what other physicists are doing and where.

F. OTHER FEATURES: reasonably priced service the individual physicist can afford; useful for retrospective search; provision of back-up services; useful supplementation of existing services (e.g. libraries, abstracts journals).

| | *US* | *UK* |
|---|---|---|
| Total no. physicists in panel ... ... ... ... ... ... ... ... | 682=100% | 268=100% |
| No. not answering question ... ... ... ... ... ... ... ... | 191 (28·0%) | 14 ( 5·2%) |
| No particular need for a current awareness journal ... ... ... ... | 30 ( 4·4%) | 20 ( 7·5%) |
| A. *Coverage* | | |
| (*a*) report current work in own specialty ... ... ... ... ... | 44 ( 6·4%) | 86 (32·1%) |
| (*b*) more complete coverage: wide and impartial; physics as a whole ... | 30 ( 4·4%) | 82 (30·6%) |
| (*c*) obscure, fringe, foreign journals not regularly scanned should be covered ... ... ... ... ... ... ... ... ... ... | 10 ( 1·5%) | 64 (23·9%) |
| (*d*) cover fields other than own specialty; related and fringe fields and developments ... ... ... ... ... ... ... ... ... | 14 ( 2·0%) | 28 (10·4%) |
| (*e*) cover wide range types of publication including non-journal material, e.g. text-books, research reports, conference proceedings, unpublished work, reports of university activities, government contracts, etc. ... | 25 ( 3·7%) | 19 ( 7·1%) |
| (*f*) review, digest, summary of new developments in physics like *New Scientist*, *Scientific American* ... ... ... ... ... ... | 11 ( 1·6%) | 17 ( 6·3%) |
| (*g*) adequate coverage of applied and industrial physics ... ... ... | 0 | 18 ( 6·7%) |
| (*h*) provide information about projected or proposed work, publications, events ... ... ... ... ... ... ... ... ... ... ... | 7 ( 1·0%) | 14 ( 5·2%) |
| (*i*) cover techniques, materials, processes adequately ... ... ... | 0 | 13 ( 4·9%) |

| | | US | UK |
|---|---|---|---|
| (*j*) | relate new work to existing knowledge by references, etc. ... ... | 6 ( 0·9%) | 3 ( 1·1%) |
| (*k*) | exclude industrial applications, concentrate on fundamental physics ... | 0 | 2 ( 0.7%) |
| (*l*) | be selective in coverage ... ... ... ... ... ... ... | 3 ( 0·4%) | 0 |
| B. | *Arrangement* | | |
| (*a*) | subject arrangement classification system used must be high class, detailed, accurate, comprehensive ... ... ... ... ... ... | 57 ( 8·4%) | 45 (16·8%) |
| (*b*) | good cross references and multi references essential ... ... ... | 12 ( 1·8%) | 19 ( 7·1%) |
| (*c*) | indexes are necessary (e.g. by author, subject, organisation) ... ... | 22 ( 3·2%) | 6 ( 2·2%) |
| (*d*) | keyword indexing ... ... ... ... ... ... ... ... | 12 ( 1·8%) | 2 ( 0·7%) |
| (*e*) | contents should be arranged by journal under broad headings ... | 1 ( 0·1%) | 11 ( 4·1%) |
| (*f*) | preference given to subject not journal in indexing arrangement ... | 0 | 10 ( 3·7%) |
| (*g*) | follow style of *Current Contents* ... ... ... ... ... ... | 8 ( 1·2%) | 0 |
| (*h*) | arranged or indexed to cover or indicate applications ... ... ... | 0 | 5 ( 1·9%) |
| (*i*) | arranged or indexed to cover or locate materials or techniques quickly ... | 0 | 5 ( 1·9%) |
| (*j*) | use subject arrangement of *Physics Abstracts* ... ... ... ... | 2 ( 0·3%) | 0 |
| (*k*) | follow arrangement in *Current Chemical Papers* ... ... ... ... | 2 ( 0·3%) | 0 |
| (*l*) | use *Physical Review* index ... ... ... ... ... ... ... | 1 ( 0·1%) | 0 |
| (*m*) | use *Mathematical Reviews* as a prototype ... ... ... ... | 1 ( 0·1%) | 0 |
| C. | *Editorial style, policy, presentation* | | |
| (*a*) | titles alone are sufficient abstracts not wanted in a c.a. journal ... | 3 ( 0·4%) | 36 (13·4%) |
| (*b*) | titles alone insufficient—should include abstracts or give some brief indication of content ... ... ... ... ... ... ... | 50 ( 7·3%) | 44 (16·4%) |
| (*c*) | exercise quality control or judgment; quality of paper or article should be indicated ... ... ... ... ... ... ... ... | 32 ( 4·7%) | 27 (10·1%) |
| D. | *Physical format* | | |
| (*a*) | should be cheap; impermanent; not for keeping ... ... ... | 0 | 3 ( 1·1%) |
| (*b*) | publish separate sections ... ... ... ... ... ... ... | 5 ( 0·7%) | 8 ( 3·0%) |
| E. | *Time and labour saving aspects: publication delay* | | |
| (*a*) | speed of getting information; minimize time-lag between publication and notification; reduce delay one gets with abstracts journals ... ... | 104 (15·2%) | 134 (50·0%) |
| (*b*) | quick and easy to use; reduce search time and labour; enable one to cover wider field in same or less time; reduce duplication of existing publications ... ... ... ... ... ... ... ... ... ... ... | 61 ( 8·9%) | 107 (39·9%) |
| (*c*) | find out easily what other physicists are doing and where; useful way of contacting other workers; provide authors' addresses ... ... ... | 9 ( 1·3%) | 27 (10·1%) |
| (*d*) | reduce time-lag for non-English material—e.g. Russian ... ... | 9 ( 1·3%) | 0 |
| F. | *Other desirable features or benefits* | | |
| (*a*) | reasonably priced, cheap enough for individual physicist to afford ... | 11 ( 1·6%) | 15 ( 5·6%) |
| (*b*) | be useful for retrospective search (arrangement and format) ... ... | 4 ( 0·6%) | 17 ( 6·3%) |
| (*c*) | supplement deficiencies of existing abstracts journals and services ... | 0 | 23 ( 8·6%) |
| (*d*) | supplement deficiencies of internal information service/library ... ... | 0 | 22 ( 8·2%) |
| (*e*) | provision of back-up services—e.g. facilities for ordering reprints or asking for extra information ... ... ... ... ... ... | 10 ( 1·5%) | 5 ( 1·9%) |
| (*f*) | replace browsing ... ... ... ... ... ... ... ... | 6 ( 0·9%) | 0 |
| (*g*) | regular routing to own desk, personal copy ... ... ... ... | 4 ( 0·6%) | 0 |
| (*h*) | summarise new developments by fields ... ... ... ... ... | 3 ( 0·4%) | 0 |
| (*i*) | replace need for personal index file ... ... ... ... ... | 2 ( 0·3%) | 0 |
| (*j*) | definitions of words currently in use ... ... ... ... ... | 1 ( 0·1%) | 0 |
| (*k*) | use current terminology ... ... ... ... ... ... ... | 1 ( 0·1%) | 0 |

## 9 LIBRARY AND INFORMATION SERVICE PROVISION

Panel members were well provided with library or information services. In reply to this question, 93% of the UK respondents said YES and 7% replied in the negative. In the US 86% respondents said YES, 10% replied in the negative and 4% did not answer the question. UK physicists are on a par with other UK scientists for library provision. Martyn* asked a similar question of UK research scientists in 1963 and found that 94% had library or information facilities provided by the employer.

An attempt was made on the US questionnaire to determine the specific types of library or information services being used by physicists. Although some information was collected, upon examination it was found to be too uninformative to merit inclusion in the report. The free language questions used in the US questionnaire proved to be the wrong method for collecting this kind of information.

* Martyn, John. Report of an investigation on literature searching by research scientists. London, Aslib Research Department, 1964.

# QUESTIONNAIRE FOR PHYSICISTS (UK)

*Introduction:* Following the appearance of the first trial issue of 'Current Papers in Physics' in November, 1965, we shall be asking you questions specifically about this publication. Meanwhile, we should like you to give us some information about yourself and the use you make of current awareness and abstracts journals generally.

(1) Do you wish to become a member of the panel, and receive one year's free subscription to 'Current Papers in Physics'?

YES ☐ NO ☐

If YES please complete and return questionnaire in envelope provided.
If NO do not complete the rest of the questionnaire, but please post it back to us in the envelope provided.

(2) Please tick the main subject field in which you work (your particular speciality)

| | | | |
|---|---|---|---|
| Mathematical physics | ☐ | Plasma physics | ☐ |
| Vibrations/waves/acoustics | ☐ | Fluids | ☐ |
| Heat | ☐ | Change of state | ☐ |
| Electricity and magnetism | ☐ | Solid-state physics | ☐ |
| Electromagnetism | ☐ | Physical chemistry | ☐ |
| Electromagnetic waves and oscillations | ☐ | Geophysics | ☐ |
| Optics | ☐ | Astrophysics | ☐ |
| X-rays | ☐ | Biophysics | ☐ |
| Quantum theory | ☐ | Other (please state) | ☐ |
| Nuclear physics | ☐ | ..... | |
| Atomic and molecular physics | ☐ | ..... | |

(3) Which of the following activities occupies **most** of your time?

| | |
|---|---|
| Management/administration | ☐ |
| Research/development | ☐ |
| Production | ☐ |
| Teaching | ☐ |
| Other activity (please define) | ☐ |

.....

(4) Does your firm or organization have any kind of staffed library or information service?

YES ☐ NO ☐ UNSURE ☐

(5) Prior to the publication of Current Papers in Physics, how do you keep up with current developments in your field of interest? (Please tick all the methods you use from the list below, and indicate the two that are most important to you by marking them 1 and 2.)

| | |
|---|---|
| Listening to papers at meetings, conferences, etc. | ☐ |
| Obtaining preprints of research papers | ☐ |
| Personal contacts with colleagues | ☐ |
| Internal abstracts journals (produced and distributed within your own organization) | ☐ |
| Published abstracts journals (examples listed in question 8) | ☐ |
| Current awareness journals (examples listed in question 6) | ☐ |
| Looking at current issues of journals | ☐ |

Other ways (please describe briefly).....

.....

(6) Some **current awareness journals** are listed below. (These are distinguished here from abstracts journals). Please tick any of them which you use fairly regularly.

Britisy Technology Index (issued by Library Association) ☐
Chemical Titles (issued by American Chemical Society) ☐
Current Chemical Papers (issued by Chemical Society) ☐
Current Contents: chemical, pharmaco-medical and life sciences (issued by Institute for Scientific Information) ☐
Current Contents: space, electronic and physical sciences (issued by Institute for Scientific Information) ☐
Current Papers for the Professional Electrical and Electronics Engineer (issued by the Institution of Electrical Engineers) ☐
Any others (please give titles) .....

.....

.....

.....

None at all* ☐

**Note:* if your answer is 'none at all' move on to question 8.

(7) What is your **main** purpose in using these current awareness journals?

learning without delay what has been published
☐ —in your own speciality
☐ —in the wider field covered by the journal
☐ checking whether work by particular authors/organizations, or on particular subjects has been published
☐ retrospective searching, retaining copies and searching your back file of them when seeking information

(8) Some **abstracts journals** are listed below. (These are distinguished here from the current awareness journals.) Please tick those which you use fairly regularly for **current awareness** and/or for **retrospective searching:**

| | For current awareness | For retrospective searching |
|---|---|---|
| Analytical abstracts | ☐ | ☐ |
| Applied Science and Technology Index | ☐ | ☐ |
| Battelle Technical Review | ☐ | ☐ |
| Bulletin Signaletique (specify sections) | ☐ | ☐ |
| ..... | | |
| ..... | | |
| Chemical Abstracts (specify sections) | ☐ | ☐ |
| ..... | | |
| ..... | | |
| Electrical Engineering Abstracts (Science Abstracts B) | ☐ | ☐ |
| Engineering Index (Plastics Section) | ☐ | ☐ |
| Engineering Index (Electrical/Electronics Section) | ☐ | ☐ |
| Engineering Index (other sections) | ☐ | ☐ |
| International Aerospace Abstracts | ☐ | ☐ |
| Mathematical Reviews | ☐ | ☐ |
| Nuclear Science Abstracts | ☐ | ☐ |
| Physics Abstracts (Science Abstracts A) | ☐ | ☐ |
| Physikalische Berichte | ☐ | ☐ |
| Referativnyi Zhurnal | ☐ | ☐ |
| Scientific and Technical Aerospace Reports (STAR) | ☐ | ☐ |
| Solid State Abstracts | ☐ | ☐ |
| US Government Research Reports | ☐ | ☐ |
| Any others (please give titles) | ☐ | ☐ |

.....

.....

.....

None at all ☐ ☐

(9) There are various current awareness tools and services other than **published** current awareness **journals.** Some are listed below. Please tick those which you have used and indicate, if you can, whether you found them better or worse, purely as **current awareness tools,** than the current awareness journals you know.

| | Have used | Found it BETTER (than current awareness journals) | Found it WORSE (than current awareness journals) |
|---|---|---|---|
| Titles or accessions lists produced by own organization | ☐ | ☐ | ☐ |
| Titles or accessions lists produced by outside organizations (**not** published services as listed in question 6) | ☐ | ☐ | ☐ |
| Abstracts bulletins produced by own organization | ☐ | ☐ | ☐ |
| Abstracts bulletins produced by outside organization (**not** published services as described in question 8) | ☐ | ☐ | ☐ |
| Selective dissemination of current information † system provided by your own organization | ☐ | ☐ | ☐ |
| Selective dissemination of current information † system provided by outside organization | ☐ | ☐ | ☐ |
| Other services or systems (specify) | ☐ | ☐ | ☐ |
| ..... | | | |
| ..... | | | |
| No experience of any of the above | ☐ | ☐ | ☐ |

†Selective dissemination of information (S.D.I.) systems: current literature scanned systematically with each individual user's interests known or borne in mind, the user being notified only of items relevant to him.

(10) In your own words, what do you hope a good published current awareness journal will do for you that other forms of literature and information service do not?

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# SURVEY OF PHYSICISTS
# INFORMATION ON CURRENT AWARENESS MODES (US)

*Conducted by* THE AMERICAN INSTITUTE OF PHYSICS

335 East 45 Street, New York, N.Y. 10017

If your name or address at left is incorrect,
Please enter correct information below:
Please give full name,

.....

.....

.....

.....

*Introduction:* When 'Current Papers in Physics' appears we will be asking you questions specifically about it. Meanwhile, we would like you to give us some information about yourself and the use you make of current awareness and abstracting journals generally.

(1) Does your organization have any kind of staffed library or information service? If yes, describe any of their services you use to keep yourself up-to-date.

(2) Do you make use of the library collection yourself to obtain references to recently published physics research papers and to keep yourself up-to-date? If yes, how?

(3) What other means do you use for keeping up with current developments in your field of interest? Plese check those you use; then rank these in order of importance to you.

a. ..... Listening to papers at meetings, conferences, etc.

b. ..... Obtaining preprints of research papers

c. ..... Personal contacts with colleagues

d. ..... Internal abstracts journal (produced and distributed within your own organization)

e. ..... Published abstracting journals (see list in 7 below)

f. ..... Current awareness journals (see list in 4 below)

g. ..... Scanning contents pages of current issues of journals

h. ..... Other ways (please describe briefly).....

.....

(4) Some current awareness journals are listed below. (These are distinguished from abstracts journals.). Please check any of them which you scan fairly regularly.

a. ..... British Technology Index (Library Association)

b. ..... Current Chemical Papers (Chemical Society)

c. ..... Chemical Titles (American Chemical Society)

d. ..... Current Contents: chemical, pharmaco-medical and life sciences. (Institute for Scientific Information)

e. ..... Current Contents: space, electronic and physical sciences. (Institute for Scientific Information)

f. ..... Current Papers for the Professional Electrical and Electronics Engineers. (Institution of Electrical Engineers)

g. ..... Any others (please give titles)

.....

.....

.....

h. ..... None at all

(5) What is your **main** purpose in using these current awareness journals?

a. ..... learning without delay what has been published:

1. ..... in your own specialty

2. ..... in the wider field covered by the journal

b. ..... checking whether work by particular authors/organizations, or on particular subjects has been published

c. ..... retrospecitve seaching, retaining copies and searching your back file of them when seeking information

(6) There are various current awareness tools and services other than **published** current awareness **journals.** Some are listed below. Please check those which you have used.

..... Titles or accessions lists produced by own organization

..... Titles or accessions lists produced by outside organizations (**not** published services as listed in question 4)

..... Abstracts bulletins produced by own organization

..... Abstracts bulletins produced by outside organization (**not** published services as described in question 7)

..... Selective dissemination of current information system provided by your own organization*

..... Selective dissemination of current information system provided by outside organization*

..... Other services or systems (specify)

.....

.....

.....

..... No experience of any of the above

*Selective dissemination of information (S.D.I.) systems: current literature scanned systematically with each individual user's interests known or borne in mind, the user being notified only of items relevant to him.

(7) Some abstracts journals are listed below. Please check those which you use fairly regularly for **current awareness** and/or for **retrospective** searching:

| | | For current awareness | For retrospective searching |
|---|---|---|---|
| a. | Analytical Abstracts | ..... | ..... |
| b. | Applied Science and Technology Index | ..... | ..... |
| c. | Battelle Technical Review | ..... | ..... |
| d. | Bulletin Signaletique (specify sections) | ..... | ..... |
| | ..... | | |
| e | Chemical Abstracts (specify sections) | ..... | ..... |
| | ..... | | |
| f. | Electrical Engineering Abstracts (Science Abstracts B) | ..... | ..... |
| g. | Engineering Index | ..... | ..... |
| h. | Engineering Index (Plastics Section) | ..... | ..... |
| i. | Engineering Index (Electrical/Electronics Section) | ..... | ..... |
| j. | International Aerospace Abstracts | ..... | ..... |
| k. | Mathematical Reviews | ..... | ..... |
| l. | Nuclear Science Abstracts | ..... | ..... |
| m. | Physics Abstracts (Science Abstracts A) | ..... | ..... |
| n. | Physikalische Berichte | ..... | ..... |
| o. | Referativnyi Zhurnal (specify sections) | ..... | ..... |
| | ..... | | |
| p. | Scientific and Technical Aerospace Reports (STAR) | ..... | ..... |
| q. | Solid State Abstracts | ..... | ..... |
| r. | US Government Research Reports | ..... | ..... |
| s. | Any others (please give titles) | ..... | ..... |
| | ..... | | |
| | ..... | | |
| | ..... | | |
| t. | None at all | ..... | ..... |

(8) Please comment on your ease of use of the above abstract journals for **current awareness** only (e.g. easy to use; not suitably arranged for own specialty; too bulky, etc.)

(9) What do you hope a good published current awareness journal will do for you that other forms of literature and information services do not?

(10) Would you be willing to respond to our request for comments on 'Current Papers in Physics' from time to time?

Yes..... No.....

# US SPECIALTIES CODES

**National Register of Scientific and Technical Personnel**
**as grouped by field of physics for CPP study**

**Acoustics. Vibrations. Waves**

8001 Applied acoustics, instruments and apparatus
8002 Architectural acoustics
8003 Ear and hearing
8004 Electroacoustics
8005 Infrasonics
8006 Mechanical vibrations and shock
8007 Musical instruments and music
8008 Noise
8010 Speech communications
8011 Theory of waves and vibrations
8012 Ultrasonics
8013 Underwater sound
8009 Other

**Atomic and Molecular Physics**

8101 Atomic, ionic and molecular beams
8102 Atomic masses and abundance
8103 Atomic structure and spectra
8104 Chemical bonds and structure
8105 Electron paramagnetic resonance
8106 Impact and scattering phenomena
8107 Mass spectroscopy
8108 Molecular structure and spectra
8110 Nuclear magnetic resonance
8109 Other

**Plasma Physics**

8710 Magneto fluid dynamics
8711 Plasma physics
8712 Rarefied gas flow

**Electricity and Magnetism**

8204 Electron dynamics
8205 Electron microscopy, ion optics
8206 Gas discharge
8207 Magnetism
8211 Physical electronics
8209 Other

**X-rays**

8213 X-ray interactions
8214 X-ray phenomena
8215 X-ray technology

**Electromagnetic Waves and Osc,**

8201 Antenna theory
8278 Electrical measurements and instruments
8202 Electromagnetic waves
8203 Electromagnetic wave propagation
8208 Masers and such devices
8210 Microwaves
8212 Quantum electronics

**Electronics**

X401 Electron ballistics
X402 Electron tubes
X403 Electronic device circuitry
X404 Electronics instrumentation
X405 Emission
X406 Gas devices
X407 Gaseous electronics
X408 Semiconductor devices
X410 Solid state elecronics
X409 Other

**Elementary Particles**

8301 Cosmic rays
8302 High energy accelerators
8303 High energy phenomena
8304 Particle detectors
8305 Phenomenological computer analysis
8309 Other

**Mechanics**

8401 Analytical mechanics
8402 Ballistics and flight dynamics
8403 Elasticity
8404 Friction
8405 High pressure physics
8406 Impact phenomena
8478 Instruments and measurements
8409 Other

**Nuclear Physics**

8501 Accelerators, detectors
8502 Neutrons
8503 Nuclear properties
8504 Nuclear reactions and scattering
8505 Nuclear spectroscopy
8506 Radiation effects
8507 Radioactive materials, isotopes
8508 Reactors
8510 Shielding
8509 Other

**Optics**

8601 Atmospheric and space optics
8602 Color, colorimetry
8603 Fiber optics
8604 Geometrical optics
8605 Information theory, communications, image evaluation
8606 Infrared phenomena
8607 Interferometry
8608 Lasers
8610 Lenses

8611 Optical instruments, techniques and devices
8612 Optical materials
8613 Photography, illumination
8614 Physical optics
8615 Physiological optics
8616 Properties of thin films
8617 Radiometry, photometry
8618 Spectroscopy
8609 Other

**Fluids and Gases**

8701 Aerodynamics
8702 Aerosols
8703 Boundary layer effects
8704 Cavities and jets
8705 Compressible fluid dynamics
8706 Explosion phenomena
8707 High temperature flow
8708 Incompressible fluid dynamics
8713 Rheology (incl. plastic flow)
8714 Shock wave phenomena
8715 Structure and properties of fluids
8716 Superfluidity
8717 Transport phenomena, diffusion
8718 Turbulence
8719 Viscosity
8709 Other

**Solid State Physics**

8801 Ceramics
8802 Co-operative phenomena
8867 Crystallography
8803 Dielectrics (incl. fluids)
8804 Dislocations and plasticity
8805 Dynamics of crystal lattices
8806 Electrical properties of surfaces and junctions
8807 Electron emission
8808 Ferromagnetism
8810 High polymers and glasses
8811 Internal friction
8812 Lattice effects and diffusion
8813 Luminescence
8814 Optical properties
8815 Para- and diamagnetism phenomena
8816 Photoconductivity and related phenomena
8817 Photoelectric phenomena
8818 Piezo and ferro-electricity
8819 Quantum mechanics of solids
8820 Radiation damage
8821 Resonance phenomena
8822 Semiconductors
8823 Superconductivity
8824 Surface structure and kinetics
8825 Thermal conduction in solid state
8826 Thin films
8809 Other

**Heat**

8B01 Calorimetry
8B02 Heat transmission
8B03 High temperature physics
8B04 Low temperature physics
8B05 Temperature and its measurement
8B06 Thermal properties
8B95 Thermodynamics
8B07 Thermodynamic relations, equations of state
8B08 Thermodynamic tables
8B09 Other

**Geophysics (incl. Astronomy, Astrophysics)**

X001 Astrometry
X002 Astrophysics
X003 Celestial mechanics
X004 Comets, meteors, interplanetary medium
X005 Cosmology and cosmogony
X006 Design of astronomical instruments
X007 Galaxies
X008 Navigation, geodetic astronomy
X010 Origin of cosmic rays
X011 Photometry of astronomical sources
X012 Physics of the interstellar medium
X013 Planets, satellites
X014 Radio astronomy
X015 Space astronomy
X016 Spectroscopy of astronomical sources
X017 Star systems and statistical astronomy
X018 Stellar energy generation, nucleogenesis, stellar evolution
X019 The sun
X020 Variable stars
X009 Other

**Physical Chemistry**

X601 Catalysis
X602 Chemical kinetics
X603 Colloid chemistry
X604 Crystal structure
X653 Determination of physical constants
X605 Electrochemistry
X606 Electrodeposition
X607 Flames and explosives
X608 Fused salts
X610 High pressure chemistry
X611 High temperature chemistry
X612 Ion exchange and applications
X613 Low temperature studies
X614 Molecular dynamics
X615 Molecular energy levels
X616 Molecular geometry
X617 Nuclear Chemistry
X618 Phase equilibria
X619 Photochemistry and energy transfer
X620 Polymer chemistry
X621 Radiation chemistry
X622 Solid state chemistry
X623 Solutions of electrolytes and nonelectrolytes
X624 Surface chemistry
X625 Thermochemistry
X695 Thermodynamics
X626 Valence theory
X609 Other

**Biophysics**

X301 Bioacoustics
X302 Bioelectricity
X303 Bio-optics
X304 Biosystems, control communications
X305 Biothermics and bioenergetics
X306 Biotransport, membrane physics
X307 Cellular
X367 Crystallography

X308 Health physics
X310 Methodology, instrumentation
X311 Molecular
X390 Radiation
X309 Other

**Other Physics Specialties**

8X51 Compiling and editing
8X53 Constants, standards, units, metrology, conversion factors
8X02 Energy conversion problems
8X03 Field theory
8X04 High vacuum techniques
8X76 History of physics and/or astronomy
8X80 Literature of physics and/or astronomy
8X05 Many body theory
8X07 Mossbauer effect
8X01 Physics and/or astronomy abstracting
8X08 Quantum mechanics
8X52 Teaching of physics and/or astronomy
8909 Physics, other

**Mathematical Physics**

8X06 Mathematical physics
8X10 Relativity and gravitation
8X11 Statistical mechanics and kinetic theory

7601 Algorithm construction
7602 Analogue systems, coding and programming
7669 Difference and functional equations
7603 Digital computers, operating systems, programming (Program preparation, monitoring, debugging)
7604 Digital computers, simulation and gaming
7605 Digital computers, design and translation of artificial languages
7606 Digital computers, machine translation of natural languages
7677 Digital computers, information retrieval
7607 Digital computers, control systems
7608 Digital computers, heuristic programming
7610 Digital computers, design
7611 Eigenvalues
7612 Error analysis
7613 General methods, iteration
7614 Interpolation, approximation, curvefitting
7615 Integral and integro-differential equations
7616 Linear equations, matrices
7617 Nomography, tables
7618 Numerical differentiation, quadrature
7687 Ordinary differential equations
7688 Partial differential equations
7609 Other

X9 **Engineering** — (Not matched in UK group)

**Employer Groups used in CPP Study**

| *United Kingdom* | *United States CPP Group* | *US National Register Code* |
|---|---|---|
| — Industrial | —Industrial | 1 — Private industry or business<br>A — Self-employed |
| — Academic | —Academic | 2 — College or university, other than medical school<br>B — Secondary school or school system |
| — Government | —Government | 3 — Federal Government—civilian employee<br>L — Military service, active duty<br>T — US Weather Bureau<br>4 — State Government<br>D — County Government<br>M — Municipal Government<br>U — Other government agency<br>6 — Consulting firm or individual consulting |
| — Other/Non-profit (This group includes research and development associations, professional institutions and learned societies) | —Other/Non-profit | J — Private weather services<br>E — Non-profit organisation, other than hospital, clinic, or other educational institution<br>P — Forecasting<br>8 — Consulting<br>H — Clinical consulting<br>Q — Industrial or management consulting<br>9 — Other<br>K, C, 5 — Medical School, Medical Corps, Hospital or clinic |

## Work Activity Groups Used in CPP Study

| *United Kingdom* | *United States CPP Group* | *US National Register Code* |
|---|---|---|
| — Administration and Management | —Management/ —Administration | 1 — Management or administration of research and development |
| — Administration and research combined | | A — Management or administration of other than research and development |
| | —Basic research | 2 — Basic research |
| — Research and development only or mainly | —Research and —Development | B — Applied research<br>4 — Development or design |
| — Research and teaching combined | | |
| — Teaching only or mainly | —Teaching | 3 — Teaching |
| — No "others" were recruited in the UK | —Other | K — Clinical research/investigation<br>S — Equipment or systems research<br>C — Report or other technical writing, editing, textbook preparation<br>L — Geological exploration<br>T — Geophysical exploration<br>D — Test development, administration, interpretation<br>M — Data compilation processing<br>5 — Clinical practice<br>E — Counselling practice<br>6 — Production, operations, maintenance, exploitation, processing, economics, evaluation<br>F — Quality control, inspection, technical services<br>W — Sales, marketing, purchasing, estimating<br>7 — Weather presentation (Radio, TV, Press, etc.)<br>G — Analysis, meteorological or climatological |

## Field of physics x employer and work activity

| | *Total* | | *Industrial* | | *Government* | | *Academic* | | *Non-profit/other* | | *Admin/ Mgt* | | *Admin/ Research* | | *Basic Research* | | *Res/Dev/ Prod.* | | *Res/ Teaching* | | *Teaching* | | *Other* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* |
| Acs/Vibs/waves ... | 25 | 17 | 9 | 5 | 7 | 4 | 6 | 7 | 3 | 1 | 5 | 3 | — | 0 | 1 | — | 13 | 10 | — | 0 | 4 | 4 | 2 | — |
| Atomic & Molecular | 47 | 12 | 6 | 0 | 8 | 4 | 25 | 8 | 8 | 0 | 6 | 3 | — | 2 | 18 | — | 3 | 5 | — | 1 | 15 | 1 | 5 | — |
| Plasma ... ... | 20 | 14 | 7 | 4 | 2 | 2 | 9 | 7 | 2 | 1 | 1 | 3 | — | 1 | 10 | — | 4 | 7 | — | 3 | 3 | 0 | 2 | — |
| Electricity & magnetism ... ... | 13 | 34 | 4 | 15 | 1 | 7 | 3 | 9 | 5 | 3 | 2 | 7 | — | 2 | 1 | — | 7 | 20 | — | 2 | 2 | 3 | 1 | — |
| X-rays ... ... | 4 | 27 | 2 | 9 | 0 | 5 | 2 | 13 | 0 | 0 | 0 | 5 | — | 3 | 0 | — | 3 | 13 | — | 4 | 1 | 2 | 0 | — |
| Electromag. waves & osc. ... ... | 21 | 21 | 8 | 9 | 8 | 5 | 4 | 7 | 1 | 0 | 8 | 3 | — | 1 | 3 | — | 8 | 12 | — | 2 | 2 | 3 | 0 | — |
| Electronics ... ... | 34 | 12 | 20 | 9 | 5 | 1 | 5 | 2 | 4 | 0 | 7 | 0 | — | 1 | 3 | — | 18 | 9 | — | 0 | 3 | 2 | 3 | — |
| Elementary particles | 41 | 5 | 3 | 0 | 5 | 0 | 24 | 5 | 9 | 0 | 4 | 0 | — | 0 | 22 | — | 5 | 2 | — | 0 | 7 | 3 | 3 | — |
| Mechanics ... ... | 20 | 16 | 7 | 8 | 4 | 4 | 6 | 2 | 3 | 2 | 4 | 2 | — | 1 | 5 | — | 5 | 13 | — | 0 | 4 | 0 | 2 | — |
| Nuclear physics ... | 82 | 35 | 7 | 5 | 8 | 12 | 32 | 18 | 35 | 0 | 11 | 7 | — | 4 | 34 | — | 14 | 13 | — | 6 | 14 | 5 | 9 | — |
| Optics ... ... | 51 | 29 | 28 | 16 | 9 | 7 | 9 | 5 | 5 | 1 | 11 | 5 | — | 0 | 9 | — | 21 | 20 | — | 1 | 4 | 3 | 6 | — |
| Fluids/gases ... | 18 | 22 | 4 | 7 | 3 | 10 | 5 | 5 | 6 | 0 | 3 | 2 | — | 3 | 8 | — | 4 | 16 | — | 0 | 1 | 1 | 2 | — |
| Solid state ... | 123 | 100 | 45 | 42 | 11 | 19 | 49 | 37 | 18 | 2 | 17 | 18 | — | 7 | 62 | — | 17 | 52 | — | 15 | 18 | 8 | 9 | — |
| Heat ... ... | 18 | 22 | 3 | 8 | 1 | 7 | 10 | 6 | 4 | 1 | 0 | 2 | — | 2 | 11 | — | 2 | 14 | — | 0 | 1 | 4 | 4 | — |
| Geophysics ... ... | 19 | 18 | 2 | 3 | 3 | 3 | 7 | 11 | 7 | 1 | 1 | 2 | — | 1 | 13 | — | 2 | 11 | — | 3 | 3 | 1 | 0 | — |
| Physical chemistry ... | 3 | 9 | 2 | 5 | 1 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | — | 0 | 1 | — | 1 | 8 | — | 1 | 0 | 0 | 0 | — |
| Biophysics ... ... | 11 | 14 | 3 | 1 | 0 | 9 | 3 | 4 | 5 | 0 | 2 | 5 | — | 1 | 3 | — | 3 | 6 | — | 2 | 0 | 0 | 3 | — |
| Other physics specialties ... ... | 66 | 18 | 14 | 5 | 4 | 4 | 41 | 8 | 7 | 1 | 2 | 1 | — | 3 | 17 | — | 11 | 10 | — | 0 | 28 | 4 | 8 | — |
| Mathematical physics | 15 | 10 | 1 | 3 | 0 | 2 | 10 | 5 | 4 | 0 | 2 | 1 | — | 0 | 8 | — | 1 | 7 | — | 1 | 2 | 1 | 2 | — |
| Engineering ... | 51 | — | 24 | — | 8 | — | 9 | — | 10 | — | 16 | — | — | — | 3 | — | 17 | — | — | — | 5 | — | 10 | — |
| TOTAL NO. PHYSICISTS | 682 | 268 | 199 | 96 | 88 | 58 | 259 | 105 | 136 | 9 | 103 | 41 | — | 16 | 232 | — | 159 | 151 | — | 31 | 117 | 29 | 71 | — |

## Appendix C *Data on Overseas Panel*

### 1. Introduction

The idea behind recruiting overseas panel members was *not* to make this study a world-wide survey. The aim was rather to get some qualitative idea of likely reactions of overseas physicists to a publication which, it was felt, could be of great potential interest and use to them. The overseas group is therefore small, and not proportionate in total size to the UK/US groups. In internal composition, it is not as well-balanced as these two groups. The overseas group was, of necessity, recruited from overseas membership of the IPPS. As a result, academic physicists are over-represented, and industrial physicists are under-represented in this section of the panel. For all the above reasons, the overseas group is considered here as a separate unit.

### 2. Response rate

The response rate to the initial questionnaire and recruiting letter was highest amongst overseas physicists—a 38% affirmative response, as opposed to 30% in the UK and 26% in the US. Possibly this indicated a greater conscious need amongst overseas physicists for a service to supplement the limited resources of physicists working, as one overseas physicist put it, "in isolation, away from the leading centres of research".

### 3. Panel composition

**Overseas Physicists**

(*a*) Employer group x work activity

| *Total:* | *Total* 57 = 100% | *Industrial* 5 = 100% | *Government* 11 = 100% | *Academic* 26 = 100% | *Non-profit* 5 = 100% |
|---|---|---|---|---|---|
| Admin. | 7 (12·3%) | 0 | 2 (18·2%) | 5 (13·9%) | 0 |
| Admin./Res. | 3 ( 5·3%) | 1 (20·0%) | 1 ( 9·1%) | 1 ( 2·8%) | 0 |
| Res./Devt/Prodn. | 31 (54·4%) | 4 (80·0%) | 8 (72·7%) | 15 (41·7%) | 4 (80·0%) |
| Res/Teaching | 10 (17·5%) | 0 | 0 | 9 (25·0%) | 1 (20·0%) |
| Teaching | 6 (10·5%) | 0 | 0 | 6 (16·7%) | 0 |

(*b*) Field of Physics

| | |
|---|---|
| *Total No. of fields* | 93 |
| No. of people giving "other" verbatim answer *1 | 18 (31·6%) |
| No. of people working in a single field | 32 (56·1%) |
| No. of people with multiple interests | 25 (43·9%) |
| Total No. of people in panel | 57 = 100% |
| *Fields of physics* *2 | |
| Acoustics/vibs./waves | 2 ( 3·5%) |
| Atomic and molecular | 4 ( 7·0%) |
| — Plasma | 3 ( 5·3%) |
| Electricity and magnetism | 3 ( 5·3%) |
| — X-rays | 6 (10·5%) |
| Electromagnetic waves and osc. | 4 ( 7·0%) |
| Electronics | 1 ( 1·8%) |
| Elementary particles | 3 ( 5·3%) |
| Mechanics | 1 ( 1·8%) |
| Nuclear physics | 6 (10·5%) |
| Optics | 5 ( 8·8%) |
| Fluids/gases | 2 ( 3·5%) |
| Solid state | 24 (42·1%) |
| Heat | 2 ( 3·5%) |
| Geophysics | 13 (22·8%) |
| Physical chemistry | 0 |
| Biophysics | 3 ( 5·3%) |
| Other physics specialties | 7 (12·3%) |
| — Mathematical physics | 4 ( 7·0%) |

*1 The original list supplied has been amended, where necessary, to include such answers—e.g. Electronics, Mechanics.
*2 Percentages in this section of the table will add up to more than 100%. Many physicists work in more than one field, and the percentagss are expressed with the total number of people (not fields) as the base.

Distribution of fields of physics amongst overseas physicists is reasonably comparable with UK/US. Geophysics was most heavily represented amongst overseas physicists. Solid-state also appeared to interest more overseas than UK/US physicists. As the overseas group is smaller numerically than the other two groups, and is unbalanced in internal proportions (regarding employer group distribution), such apparent differences may in fact mean very little.

**4. Methods of current awareness: usage and preference**

The main result of this question is the same for UK/US and overseas physicists. All three groups relied most heavily in usage and preference on current issues of journals as a means of keeping up to date. There are, however, two interesting minor differences which are probably attributable to the relatively isolated situation in which many overseas physicists work. The overseas group tended to make less use of personal contact and internal abstracts journals as means of obtaining current information than the UK/US physicists did. Overseas usage of formal (published) sources is far more comparable with UK/US figures.

CURRENT AWARENESS METHODS

USAGE AND PREFERENCE AMONGST OVERSEAS PHYSICISTS

| | *Total usage (all mentions) | 1st Pref. | 2nd Pref. | *Also Mentioned |
|---|---|---|---|---|
| Total no. of physicists in panel ... ... ... | 57 = 100% | 57 = 100% | 57 = 100% | 57 = 100% |
| Total no. giving answer ... ... ... ... | 57 | 41 | 38 | 44 |
| *Methods used:* | | | | |
| listening to papers, etc. ... ... ... | 33 (57·9%) | 3 ( 5·3%) | 0 | 30 (52·6%) |
| obtaining preprints ... ... ... ... | 28 (49·1%) | 5 ( 8·8%) | 5 ( 8·8%) | 18 (31·6%) |
| personal contacts ... ... ... ... | 31 (54·4%) | 0 | 11 (19·3%) | 20 (35·1%) |
| internal abs. jnls. ... ... ... ... | 5 ( 8·8%) | 1 ( 1·8%) | 0 | 4 ( 7·0%) |
| published abs. jnls. ... ... ... ... | 38 (66·7%) | 5 ( 8·8%) | 12 (21·1%) | 21 (36·8%) |
| current awareness jnls. ... ... ... | 9 (15·8%) | 2 ( 3·5%) | 2 ( 3·5%) | 5 ( 8·8%) |
| current issues of jnls. ... ... ... ... | 52 (91·2%) | 25 (43·8%) | 8 (14·0%) | 19 (33·3%) |
| other methods ... ... ... ... ... | 7 (12·3%) | 0 | 0 | 7 (12·3%) |

* Percentages in these columns will not tally, as multiple answers were possible.

**5. Use of published current awareness journals prior to CPP, and reasons for using**

(*a*) Usage of current awareness journals was lower in the overseas group than it was in the UK/US. Percentage using current awareness journals was as follows: UK 27%; US 33%; overseas 21%. However, regarding journals used, overseas physicists do not differ from US/UK. The only two journals used at all by overseas physicists were *Current Contents: Space*, used by eight overseas physicists (14%) and *Current Papers for the Professional Electrical and Electronics Engineer*, used by three physicists (5·3%). Like US physicists, but unlike UK physicists, the overseas group used CPEEE more than *Current Contents: Space*.

(*b*) Reason for using current awareness journals: once again, results are, insofar as one can judge from the small group (11) answering this question in line with UK/US results. The most common reason for using a current awareness journal amongst overseas physicists was "learning without delay what has been published in own specialty". This was mentioned by eight physicists (14% of all overseas physicists).

**6. Use made of other services**

Usage of other services was generally lower amongst overseas physicists cf. UK/US. This may well indicate that the group has more limited resources at their disposal than the UK/US groups, rather than a lack of interest in such resources. It could also be indicative of a genuine need amongst overseas physicists for a current awareness publication. Overseas figures are given below:

| | |
|---|---|
| Total number of physicists in panel ... ... ... ... ... ... ... | 57 = 100% |
| No. using other current awareness services ... ... ... ... ... | 32 (56·1%) |
| No. using *none* of the other services listed below ... ... ... ... ... | 25 (43·9%) |
| *Other services used:* | |
| Titles or accessions lists | |
| — own organization ... ... ... ... ... ... ... ... | 19 (33·3%) |
| — outside organizations ... ... ... ... ... ... ... ... | 10 (17·5%) |
| Abstracts bulletins | |
| — own ... ... ... ... ... ... ... ... ... ... | 8 (14·0%) |
| — outside ... ... ... ... ... ... ... ... ... ... | 6 (10·5%) |
| SDI system | |
| — own organization ... ... ... ... ... ... ... ... | 8 (14·0%) |
| — outside organization ... ... ... ... ... ... ... ... | 3 ( 5·3%) |
| Other services or systems ... ... ... ... ... ... ... ... | 0 |

## 7. Use made of abstracts journals

All the overseas physicists used abstracts journals for some purpose. Overseas physicists appeared to be even more dependent on abstracts journals than UK/US physicists, but the probable reason is, however, heavier use for retrospective search. Seventy-seven per cent of the overseas group used abstracts journals for current awareness and 93% used them for retrospective search.

Usage of *Physics Abstracts* was even higher amongst the overseas physicists than amongst UK/US physicists. The table below gives overseas usage of main abstracts journals only.

**Use made of abstracts journals by overseas physicists**

| | *Total Usage* | *Current Awareness* | *Retros. Search* |
|---|---|---|---|
| Total no. of physicists in panel ... ... ... ... ... | 57 = 100% | 57 = 100% | 57 = 100% |
| Total no. using abstracts journals ... ... ... ... ... | 57 (100·0%) | 44 (77·2%) | 53 (93·0%) |
| Chemical Abs. ... ... ... ... ... ... ... | 8 (14·0%) | 2 ( 3·5%) | 8 (14·0%) |
| Electrical Engineering Abs. ... ... ... ... ... ... | 10 (17·5%) | 8 (14·0%) | 8 (14·0%) |
| Nuclear Science Abs. ... ... ... ... ... ... ... | 15 (26·3%) | 6 (10·5%) | 13 (22·8%) |
| Physics Abs. ... ... ... ... ... ... ... ... | 51 (89·5%) | 33 (57·9%) | 46 (80·7%) |
| Solid State Abs. ... ... ... ... ... ... ... | 12 (21·0%) | 9 (15·8%) | 9 (15·8%) |
| US Govt. Res. Reports ... ... ... ... ... ... | 8 (14·0%) | 8 (14·0%) | 3 ( 5·3%) |

## 8. Requirements of a physics current awareness journal

Overall attitude to CPP prior to publication was rather similar in the overseas and UK groups:

| | *UK* | *Overseas* |
|---|---|---|
| Total number of physicists in panel ... ... ... ... ... ... ... | 268 = 100% | 57 = 100% |
| No. apparently in favour of the idea of CPP ... ... ... ... ... ... | 214 (79·8%) | 46 (80·6%) |
| No. with neutral or mixed attitude ... ... ... ... ... ... ... | 20 ( 7·5%) | 1 ( 1·8%) |
| No. with antagonistic attitude ... ... ... ... ... ... ... ... | 20 ( 7·5%) | 5 ( 8·8%) |
| No. failing to answer this question ... ... ... ... ... ... ... | 15 ( 5·2%) | 5 ( 8·8%) |

On a qualitative level some interesting comments were made about the benefits expected from such a journal by physicists working in isolated communities with limited literature and information services at their disposal.

## 9. Library and information service provision

Overseas physicists in the CPP panel were slightly better provided with library services than UK/US respondents. Ninety-eight per cent of overseas panel members had such facilities; 93% of UK and 86% of US physicists said that they had similar facilities. This apparently interesting result should, however, be approached with some caution, and no general conclusions drawn. The overseas group is only a small miscellaneous collection of physicists.

## APPENDIX D *Summary of Trends Indicated by Employer: Work Activity and Field of Physics*

This section follows the sequence of the main report and the analysis is presented as a series of tables. This includes the following:

Methods of Current Awareness
Use of Published Current Awareness Journals
Use Made of Other Services
Use Made of Published Abstracts Journals.

The specified requirements of a physics current awareness journal and the library and information provision have not been analysed in this section of the report. Extrapolation from any table would be extremely misleading as reference to Appendix B shows that the division of the panel into groups reduces each group to an extremely small cell about which definitive statements can not be made.

Where percentage figures are given in the following tables it should be remembered that these may represent a very small segment of the total panel, for example in the UK Non-Profit Group 9 people = 100%,

As the Work Activity groups are not comparable in the two countries, tabulation of these has been kept to a minimum. The same is true for the field of physics tabulation, where comparison between the two countries is difficult because the US physicist is recorded in a single field and the UK physicist may have multiple placement.

Detailed tables are not included in this section of the report. They can be obtained by writing to Mrs. M. Slater, Aslib Research Department, 3 Belgrave Square, London S.W.1, or to Miss S. Keenan, American Institute of Physics, 335 East 45th Street, New York 10017.

**Methods of Current Awareness: Employer Table**

| US/UK Total Using | US/UK No. % | Rank | Methods Used | Industrial US No. Using | Industrial US Rank | Industrial UK No. Using | Industrial UK Rank | Government US No. Using | Government US Rank | Government UK No. Using | Government UK Rank | Academic US No. Using | Academic US Rank | Academic UK No. Using | Academic UK Rank | Non-Profit US No. Using | Non-Profit US Rank | Non-Profit UK No. Using | Non-Profit UK Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 868 | 91·4 | 1 | Scanning current issues ... | 177 | 1 | 88 | 1 | 77 | 1 | 55 | 1 | 245 | 1 | 99 | 1 | 118 | 1 | 9 | 1 |
| 775 | 81·6 | 2 | Personal contacts ... ... | 151 | 3 | 71 | 2 | 76 | 2 | 49 | 2 | 223 | 3 | 82 | 2 | 116 | 2 | 7 | 3 |
| 773 | 81·4 | 3 | Listening to papers ... | 160 | 2 | 70 | 3 | 72 | 3 | 43 | 3 | 229 | 2 | 77 | 3 | 113 | 3 | 9 | 1 |
| 553 | 58·2 | 4 | Published abs. jnls. ... | 100 | 5 | 64 | 4 | 42 | 5 | 35 | 4 | 141 | 5 | 75 | 4 | 90 | 4 | 6 | 4 |
| 550 | 57·9 | 5 | Obtaining preprints ... | 108 | 4 | 42 | 6 | 63 | 4 | 27 | 6 | 168 | 4 | 60 | 5 | 77 | 5 | 5 | 5 |
| 241 | 25·4 | 6 | Int. abs. jnls. ... ... | 67 | 6 | 50 | 5 | 22 | 6 | 32 | 5 | 28 | 7 | 11 | 7 | 27 | 6 | 4 | 6 |
| 206 | 21·7 | 7 | Current awareness jnls. ... | 53 | 7 | 23 | 7 | 20 | 7 | 17 | 7 | 45 | 6 | 17 | 6 | 30 | 7 | 1 | 7 |
| 113 | 11·9 | 8 | Other Methods ... ... | 33 | 8 | 13 | 8 | 19 | 8 | 4 | 8 | 22 | 8 | 8 | 8 | 14 | 8 | — | — |
| 950 | | | TOTAL NO. IN GROUP ... | 199 | | 96 | | 88 | | 58 | | 259 | | 105 | | 136 | | 9 | |

In this table the ranking of methods has been determined by the total UK/US usage shown in the left hand columns. This table shows the slight shifting in position at the top of the list. It also shows the difference in the use of published abstracts journals as current awareness journals in the two countries. In each UK employer group this method is ranked fourth, while in the US obtaining preprints is ranked fourth by three of the four employer groups. No cross sort by work activity or field of physics is presented for this question.

**Use Made of Published Current Awareness Journals**

*(a) Employer group*

Employer group appeared to have some influence on the extent of use of published current awareness journals prior to CPP. In both the UK and the US academic physicists made the least use of current awareness journals of all the employer groups, as the following table shows.

In this table, the number in each group is shown as a fraction of the total population within the group.

| *Total No. Using* | *%* | | *EMPLOYER* *Industrial* | *Government* | *Academic* | *Non-Profit/Other* |
|---|---|---|---|---|---|---|
| 297/950 | 31·3% | US/UK | 105/295 | 55/146 | 89/364 | 48/145 |
| 225/682 | 33·0% | US | 75/199 | 37/88 | 67/259 | 46/136 |
| 72/268 | 26·9% | UK | 30/96 | 18/58 | 22/105 | 2/9 |

Employer and country of domicile seemed to have a dual effect on usage of the two most heavily used current awareness journals (*Current Contents: space, electronic and physical sciences* and *Current Papers for the Professional Electrical and Electronics Engineer*). Employer group differences and bias towards publications originating in own country can both be observed in the figures given below.

**Use of Current Contents . . . Phys. Sci. and CPEEE**

| *Total No. Using* | | *EMPLOYER* *Industrial* | | *Government* | | *Academic* | | *Non-Profit/Other* | |
|---|---|---|---|---|---|---|---|---|---|
| *US/UK* | | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* |
| 154/950 | Current Contents, Phys. Sci. | 33/199 | 7/96 | 22/88 | 6/58 | 43/259 | 14/105 | 29/136 | 0/9 |
| 92/950 | CPEEE | 24/199 | 19/96 | 8/88 | 11/58 | 11/259 | 6/105 | 12/136 | 1/9 |

*(b) Work Activity* *

Usage of current awareness journals prior to CPP did not vary much in the UK work activity groups. It is interesting to note that there is far more variation in the US group. However, it should be remembered that these groups can not be directly compared.

| *Total Using %* | | | *Admin.* | *Ad/Res.* | *Res/Dev.* | *Basic Res.* | *Res/Tea.* | *Tea.* | *Other* |
|---|---|---|---|---|---|---|---|---|---|
| 297/950 | 31·3% | US/UK | 47/144 | 5/16 | 107/310 | 67/232 | 9/31 | 37/146 | 25/71 |
| 225/682 | 33·0% | US | 38/103 | — | 65/159 | 67/232 | — | 30/117 | 25/71 |
| 72/268 | 26·9% | UK | 9/41 | 5/16 | 42/151 | — | 9/31 | 7/29 | — |

| *Total No. Using US/UK* | *Admin.* | | *Ad/Res.* | | *Res/Dev.* | | *Basic Res.* | | *Res/Tea.* | | *Tea.* | | *Other* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* |
| 154/950 Current Contents ... | 10/103 | 0/41 | — | 3/16 | 35/159 | 15/151 | 53/232 | — | — | 5/31 | 18/117 | 4/29 | 11/71 | — |
| 92/950 CPEEE ... | 17/103 | 7/41 | — | 2/16 | 20/159 | 22/151 | 6/232 | — | — | 3/31 | 7/117 | 3/29 | 5/71 | — |

* It was not possible to provide a direct match between the work activities in the two countries. The US Basic Research group and the Research/Teaching combination in the UK can not be matched directly. A partial combination of the US Basic Research and Teaching lines would probably be needed. The use of a dash (—) indicates that there is no comparable group in one of the countries.

## Use Made of Other Services

PERCENTAGE OF PHYSICISTS USING OTHER SERVICES: EMPLOYER GROUP

| | *Total* | | | *Industrial* | | | *Government* | | | *Academic* | | | *Non-Profit* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *US/UK* | *US* | *UK* | *US/UK* | *US* | *UK* | *US/UK* | *US* | *UK* | *US/UK* | *US* | *UK* | *US/UK* | *US* | *UK* |
| Total No. of physicists (100%): ... ... | 950 | 682 | 268 | 295 | 199 | 96 | 146 | 88 | 58 | 264 | 259 | 105 | 145 | 136 | 9 |
| % using other current awareness services ... | 63·3% | 61·7% | 67·2% | 77·0% | 74·4% | 82·2% | 78·1% | 73·9% | 84·5% | 45·3% | 45·6% | 44·8% | 65·5% | 66·2% | 55·6% |
| % using *none* of other services listed below ... | 36·7% | 38·3% | 32·8% | 23·0% | 25·6% | 17·8% | 21·9% | 26·1% | 15·5% | 54·7% | 54·4% | 55·2% | 34·5% | 33·8% | 44·4% |
| *Other Services Used:* | | | | | | | | | | | | | | | |
| Titles lists—own ... ... ... ... | 43·0% | 42·1% | 45·5% | 52·9% | 51·8% | 55·2% | 64·4% | 55·7% | 77·6% | 24·2% | 25·5% | 19·0% | 50·3% | 50·7% | 44·4% |
| Titles lists—outside ... ... ... ... | 18·1% | 17·9% | 18·7% | 16·9% | 17·1% | 16·7% | 24·0% | 22·7% | 25·9% | 15·7% | 15·1% | 17·1% | 20·7% | 21·3% | 11·1% |
| Abs. bulls—own ... ... ... ... | 28·3% | 13·9% | 27·6% | 33·2% | 25·6% | 48·9% | 25·3% | 18·2% | 36·2% | 3·6% | 4·2% | 1·9% | 14·5% | 12·5% | 44·4% |
| Abs. bulls—outside ... ... ... ... | 12·7% | 11·9% | 14·9% | 13·6% | 11·6% | 17·8% | 21·9% | 22·7% | 20·7% | 10·7% | 10·8% | 10·5% | 6·9% | 7·3% | 0% |
| SDI—own ... ... ... ... ... | 16·0% | 14·8% | 19·0% | 24·7% | 24·1% | 26·0% | 24·0% | 21·6% | 27·6% | 6·6% | 5·8% | 8·6% | 13·8% | 14·0% | 11·1% |
| SDI—outside ... ... ... ... | 5·7% | 6·3% | 4·1% | 6·1% | 6·0% | 6·2% | 8·9% | 13·6% | 1·7% | 3·6% | 3·5% | 3·8% | 6·9% | 7·3% | 0% |
| Other services or systems ... ... ... | 4·0% | 4·8% | 1·9% | 2·7% | 3·0% | 2·1% | 4·1% | 5·7% | 1·7% | 4·1% | 5·0% | 1·9% | 6·2% | 6·6% | 0% |

Employer group seemed to influence usage of other current awareness services, prior to CPP, in both the UK and the US. Usage of such services was lower amongst both UK and US academic physicists than it was in the other three employer groups.

PERCENTAGE OF PHYSICISTS USING OTHER SERVICES: WORK ACTIVITY**

| | *Admin.* | | *Admin./ Research* | | *Res/Dev/ Prod.* | | *Basic Research* | | *Res/ Teaching* | | *Teaching* | | *Other* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* | *US* | *UK* |
| *Total No. of physicists (100%): ... ... ... | 103 | 41 | — | 16 | 159 | 151 | 232 | — | — | 31 | 117 | 29 | 71 | — |
| % using other current awareness services ... ... | 77·7% | 68·3% | — | 87·5% | 74·8% | 75·5% | 57·8% | — | — | 41·9% | 42·7% | 37·9% | 53·5% | — |
| % using *none* of other services listed below ... ... | 22·3% | 31·7% | — | 12·5% | 25·2% | 24·5% | 42·2% | — | — | 58·1% | 57·3% | 62·1% | 46·5% | — |
| *Other Services Used* | | | | | | | | | | | | | | |
| Titles lists—own ... ... ... ... ... | 51·5% | 46·3% | — | 81·3% | 57·9% | 51·7% | 40·5% | — | — | 25·8% | 20·5% | 13·8% | 33·8% | — |
| Titles lists—outside ... ... ... ... ... | 20·4% | 26·8% | — | 31·3% | 19·5% | 18·5% | 17·2% | — | — | 6·5% | 17·1% | 13·8% | 14·1% | — |
| Abs. bulls.—own ... ... ... ... ... | 21·4% | 26·8% | — | 68·8% | 22·6% | 31·8% | 8·6% | — | — | 9·7% | 3·4% | 3·4% | 18·3% | — |
| Abs. bulls.—outside ... ... ... ... | 17·5% | 17·1% | — | 25·0% | 12·6% | 14·6% | 10·8% | — | — | 12·9% | 9·4% | 10·3% | 9·9% | — |
| SDI—own ... ... ... ... ... ... | 24·3% | 22·0% | — | 25·0% | 22·6% | 21·2% | 10·3% | — | — | 9·7% | 5·1% | 10·3% | 14·1% | — |
| SDI—outside ... ... ... ... ... ... | 7·8% | 9·7% | — | 12·5% | 6·3% | 2·6% | 6·0% | — | — | 3·2% | 6·0% | 0% | 5·6% | — |
| Other services or systems ... ... ... ... | 7·8% | 4·9% | — | 6·3% | 2·5% | 1·3% | 4·7% | — | — | 0% | 6·8% | 0% | 2·8% | — |

Work activity also seemed to affect extent of use of other current awareness services prior to CPP in both the UK and the US. Administrators and research workers made heavier use of such services than teachers. The type of service used also varied within the employer groups

*For combined US/UK totals, see previous table (employer group).

**It was not possible to provide a direct match between the work activities in the two countries. The US Basic Research group and the Research/Teaching combination in the UK can not be matched directly. A partial combination of the US Basic Research and Teaching lines would probably be needed. The use of a dash (—) indicates that there is no comparable group in one of the countries.

**Use Made of Abstracts Journals: Employer Group Smumary**

| | *Total No. of Physicists* | | | *Total Usage* | | | *Current Awdre.* | | | *Retro.* | | | *None* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *US/UK* | *US* | *UK* | *US/UK No.* | *US No.* | *UK No.* | *US/UK No.* | *US No.* | *UK No.* | *US/UK No.* | *US No.* | *UK No.* | *US/UK No.* | *US No.* | *UK No.* |
| Total ... ... ... | 950 | 682 | 268 | 829/950 (87%) | 588/682 (84%) | 241/268 (90%) | 610/950 (64%) | 423/682 (60%) | 187/268 (70%) | 744/950 (78%) | 524/682 (75%) | 220/268 (82%) | 121/950 (13%) | 94/682 (13%) | 27/268 (10%) |
| Industrial ... ... ... | 295 | 199 | 96 | 247/295 (84%) | 163/199 (82%) | 84/96 (87%) | 190/295 (64%) | 126/199 (63%) | 64/96 (67%) | 210/295 (71%) | 136/199 (68%) | 74/96 (77%) | 48/295 (16%) | 36/199 (18%) | 12/96 (13%) |
| Government ... ... | 146 | 88 | 58 | 122/146 (84%) | 71/188 (81%) | 51/58 (88%) | 99/146 (68%) | 60/88 (68%) | 39/58 (67%) | 106/146 (73%) | 59/88 (67%) | 47/58 (81%) | 24/146 (16%) | 17/88 (19%) | 7/58 (12%) |
| Academic ... ... | 364 | 259 | 105 | 328/364 (90%) | 230/259 (89%) | 98/105 (93%) | 223/364 (61%) | 146/259 (56%) | 77/105 (73%) | 307/364 (84%) | 215/259 (83%) | 92/105 (88%) | 36/364 (10%) | 29/259 (11%) | 7/105 (7%) |
| Non-Profit/Other ... | 145 | 136 | 9 | 132/145 (91%) | 124/136 (91%) | 8/9 (89%) | 98/145 (68%) | 91/136 (67%) | 7/9 (78%) | 121/145 (83%) | 141/136 (84%) | 7/9 (78%) | 13/145 (9%) | 12/136 (9%) | 1/9 (11%) |

Academic physicists and physicists employed by non-profit organizations were the heaviest users of abstracts journals in both countries, though it should be remembered that the "non-profit" category consists mainly of US physicists. Although the highest overall user, it is interesting to note the low use of abstracts journals for current awareness by the academic group and the high use for retrospective searching.

No data are presented for use by work activity in this section of the report.

**Use Made of Published Abstracts Journals**

In examining the use of abstracts journals by field of physics, it appears that *Physics Abstracts* is the most used journal for nearly every subject specialty. The only exceptions were in the US for the fields of Nuclear Physics, in which *Nuclear Science Abstracts* was the most used journal, and Electronics and Engineering, in which *US Government Research and Development Reports* were the most used.

The following table shows the significant use of other abstracts journals compared with the use made of *Physics Abstracts*. For the purpose of this table, significant use has been arbitrarily set at 25% of the combined total of physicists in both countries.

This table is presented because it contains some interesting data, but extrapolation from the figures given below would be extremely misleading. UK respondents were permitted to select more than one field of physics in describing their interest area, while US respondents were placed in a single field which corresponded to their major specialty in the National Register.

**Use of Published Abstracts Journals: Field of Physics Summary Table**

| | | *US ONLY* | | *UK ONLY* | | *TOTAL* | *US/UK* |
|---|---|---|---|---|---|---|---|
| *Name of field* | *Abstracts Journals* | *No. in Field* | *No. Using* | *No. in Field* | *No. Using* | *No. in Field* | *No. Using* |
| Acoustics, etc. | | 25 | | 17 | | 42 | |
| | Physics Abstracts | | 9 | | 13 | | 22 |
| | Elec. Eng. Abs. | | 4 | | 6 | | 10 |
| | US Govt. Res. Reps. | | 7 | | 5 | | 12 |
| Atom & Mol. Physics | | 47 | | 12 | | 59 | |
| | Physics Abstracts | | 31 | | 11 | | 42 |
| | Chemical Abstracts | | 16 | | 3 | | 19 |
| | US Govt. Res. Reps. | | 12 | | 2 | | 14 |
| Plasma Physics | | 20 | | 14 | | 34 | |
| | Physics Abstracts | | 15 | | 14 | | 29 |
| | Nuclear Science Abs. | | 7 | | 6 | | 13 |
| Physical Chemistry | | 3 | | 9 | | 12 | |
| | Physics Abstracts | | 1 | | 6 | | 7 |
| | Chemical Abstracts | | 1 | | 6 | | 7 |
| | Nuclear Science Abs. | | 0 | | 3 | | 3 |
| | US Govt. Res. Reps. | | 1 | | 4 | | 5 |
| Biophysics | | 11 | | 14 | | 25 | |
| | Physics Abstracts | | 6 | | 6 | | 12 |
| | Chemical Abstracts | | 5 | | 1 | | 6 |
| | Nuclear Science Abs. | | 3 | | 6 | | 9 |
| | US Govt. Res. Reps. | | 3 | | 5 | | 8 |
| Other Phys. Specs. | | 66 | | 18 | | 84 | |
| | Physics Abstracts | | 47 | | 11 | | 58 |
| Math Physics | | 15 | | 10 | | 25 | |
| | Physics Abstracts | | 7 | | 9 | | 16 |
| | Mathematical Reviews | | 7 | | 4 | | 11 |
| Engineering | | 51 | | No matching group in UK | | 51 | |
| | Physics Abstracts | | 11 | | | | 11 |
| | Engineering Index | | 13 | | | | 13 |
| | Elec. Eng. Abs. | | 11 | | | | 11 |
| | Nuclear Science Abs. | | 13 | | | | 13 |
| | US Govt. Res. Reps. | | 18 | | | | 18 |
| Elec. & Magnetism | | 13 | | 34 | | 47 | |
| | Physics Abstracts | | 9 | | 23 | | 32 |
| | Elec. Eng. Abs. | | 5 | | 16 | | 21 |
| X-Rays | | 4 | | 27 | | 31 | |
| | Physics Abstracts | | 1 | | 18 | | 19 |
| | Nuclear Science Abs. | | 1 | | 7 | | 8 |
| Electromag. Waves & Oscillations | | 21 | | 21 | | 42 | |
| | Physics Abstracts | | 13 | | 18 | | 31 |
| | Elec. Eng. Abs. | | 9 | | 15 | | 24 |
| | US Govt. Res. Reps. | | 9 | | 7 | | 16 |

| Name of field | Abstracts Journals | US ONLY No. in Field | US ONLY No. Using | UK ONLY No. in Field | UK ONLY No. Using | TOTAL No. in Field | US/UK No. Using |
|---|---|---|---|---|---|---|---|
| Electronics | | 34 | | 12 | | 46 | |
| | Physics Abstracts | | 13 | | 6 | | 19 |
| | Elec. Eng. Ebs. | | 12 | | 5 | | 17 |
| | US Govt. Res. Reps. | | 15 | | 2 | | 17 |
| Elementaty Particles | | 41 | | 5 | | 46 | |
| | Physics Abstracts | | 28 | | 5 | | 33 |
| | Nuclear Science Abs. | | 24 | | 0 | | 24 |
| Mechanics | | 20 | | 16 | | 36 | |
| | Physics Abstracts | | 6 | | 6 | | 12 |
| | US Govt. Res. Reps. | | 6 | | 3 | | 9 |
| Nuclear Physics | | 82 | | 35 | | 117 | |
| | Physics Abstracts | | 52 | | 24 | | 76 |
| | Nuclear Science Abs. | | 65 | | 18 | | 83 |
| Optics | | 51 | | 29 | | 80 | |
| | Physics Abstracts | | 28 | | 21 | | 49 |
| | US Govt. Res. Reps. | | 16 | | 7 | | 23 |
| Fluids and Gases | | 18 | | 22 | | 40 | |
| | Physics Abstracts | | 10 | | 16 | | 26 |
| | US Govt. Res. Reps. | | 4 | | 6 | | 10 |
| Solid State | | 123 | | 100 | | 223 | |
| | Physics Abstracts | | 99 | | 85 | | 184 |
| | Chemical Abstracts | | 47 | | 16 | | 63 |
| | Solid State Abstracts | | 45 | | 28 | | 73 |
| Heat | | 18 | | 22 | | 40 | |
| | Physics Abstracts | | 15 | | 14 | | 29 |
| Geophysics | | 19 | | 18 | | 37 | |
| | Physics Abstracts | | 6 | | 16 | | 22 |
| | Elec. Eng. Abs. | | 3 | | 5 | | 8 |
| | US Govt. Res. Reps. | | 4 | | 4 | | 8 |

APPENDIX E

## US Only

*Comments on the use of published abstracts journals as current awareness tools*

Total no. of physicists: 682 (100·0%)
No. answering question: 481 ( 70·5%)

| *Favourable comments* | *Respondents* | % |
|---|---|---|
| Easy to use | 91 | 13·3 |
| No complaint about abstracts journals as current awareness tools | 38 | 5·6 |
| Abstracts journals cover more material than current awareness journals | 4 | 0·6 |
| ***Critical comments*** | | |
| *(a) General* | | |
| Too bulky | 95 | 13·9 |
| Time-lag too great | 90 | 13·2 |
| Subject arrangement inadequate; too broad; or not suitable for own specialty | 82 | 12·0 |
| Abstracting tools not suitable for current awareness | 20 | 2·9 |
| *(b) Suggested additions* | | |
| Inadequate coverage of abstracts journals | 17 | 2·5 |
| Additional X references or cross filing | 9 | 1·3 |
| Include authors' address | 5 | 0·7 |
| Include keyword index | 3 | 0·4 |
| *(c) Indexing* | | |
| Indexing time-lag too great | 12 | 1·8 |
| Indexing inadequate | 18 | 2·6 |
| Cumulative indexes should be provided (e.g. 10—year) | 1 | 0·1 |
| *(d) Abstracts* | | |
| Abstracts not sufficiently informative | 9 | 1·3 |
| Abstracts poorly written or misleading | 7 | 1·0 |
| Terminology obsolete or archaic | 2 | 0·3 |
| *(e) Miscellaneous* | | |
| Too expensive for personal subscription | 6 | 0·9 |
| Inconvenient to use because of location | 5 | 0·7 |
| No evaluation | 4 | 0·6 |
| Concentrate listings in a narrow subject field | 6 | 0·9 |
| Do not cover classified material | 2 | 0·3 |